RURAL WOMEN PARTICIPATION IN LIVESTOCK REARING AT MASUNDIA UNION UNDER PABNA DISTRICT

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The Author

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ABSTRACT

The purpose of this study is to determine and describe the rural women participation in livestock rearing and to find out the contribution of the selected characteristics of the rural women and their extent of participation in livestock rearing . The selected characteristics were age, level of education ,farm size , family size , annual family income , contact with service provider , contact with mass media , cosmo politeness , extent of helping hi different family activities , problem faced for livestock rearing , knowledge about livestock rearing. Data were gathered from 100 women hi the selected three villages at Masundia Union of BeraUpazilla Under Pabna district by using a pretested interview schedule. Multiple regression coefficient was used to examine the contribution of the selected characteristics of the rural women hi participation hi livestock rearing -The findings revealed that the women belonged to medium participation category constitute the highest proportion 43% followed by low participation32% , no participation 16% and high participation 9% . Among the respondent women, a J of 75%respondent women have low to medium participation group. Multiple regression exposed that farm size, contact with service provider, education, helping of family activities and knowledge on livestock rearing were significant contributing factors.

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INTRODUCTION

1.1 General Background

Bangladesh is one of the most densely populated country in the world with a population of over 158.167 million (BBS, 2013 -2014) with a growth rate of 1.37 % per annum .An overwhelming majority of the total population (76.61 %)live in rural areas .Population density is 1015 persons per square kilometer (BBS, 2013 -2014).It is Asia's 5th and world's 8th most populous country .The per capita income is about 1190 and its people have life expectancy of 69 years (BBS , 2013 -2014).

Agriculture is the backbone of this country. Livestock is one of the important parts of the overall economy of Bangladesh. It contributes, about 3.1% the GDP of Bangladesh and therein total foreign exchange earning accounts for about 6.2 % Milk and meat production are 9.6 and 2.03 million metric tons respectively (BBS .2013 -2014).Majority of the people of Bangladesh are suffering from malnutrition .especially due to shortage of protein .Livestock can play a vital role in solving nutritional deficiency within a shortest possible time .Furthermore, it has got a great potentiality to provide additional income to the poor families .

It is estimated that women are almost half of the total population of the world .In Bangladesh 49.06 %of the populations are women of which 76.6% live in the rural area(BBS,2013-2014). There is a close relationship between the status of women and socio-economic development of any country .To ensure a balance socio-economic development of the country, empowerment of women is a pre-condition This may be achieved only when there is an increased participation of women in income generating activities .The role of women in livestock rearing play a significant influences 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 generally stay in their homestead, the most useful way of their earning is livestock rearing with rrJnimum care (Aziz,2008).A total of 14,483,626 ha land area is in Bangladesh including 1,294,803 ha (9%) are low land area 2,178,045 (15%) are urban ,rivers :i household area and the rest of 11,010,778 ha (76%) high land area , which is appropriate for livestock rearing .

It is common nature in Bangladesh that women are being deprived by the society and there is a little concern about their rights .It is very much true that, women can have a significant contribution over the productivity and income of their family .Poultry raising, goat and cattle rearing by women are some activities which may

change the total economic scenario of the country .Introduction of new technologies can encourage women to participate in agriculture activities also. In Bangladesh men are dominated over women .The situation seems to be changing

y by day due to the introduction of new sustainable technologies in agriculture .like goat and cattle rearing ,poultry raising ,homestead farming etc.

Livestock rearing is an important income generating activities that was initiated ry different government, non- government organizations for the rural women .It is quite pertinent and necessary to know the extent of participation of rural women towards livestock rearing of NGOs (wohab,2010).But a very limited research work has been done on this aspect .Therefore, the researcher felt necessity to conduct a research entitled "Rural Women Participation in Livestock Rearing at Masundia Union under Pabna District".

1.2 Statement of the problem

In the rural area of Bangladesh, women are the key operators of household activities. Women can play a vital role according to economic demand of farm families and other farm activities by rearing livestock .But due to the lack of adequate knowledge and favorable participation towards livestock rearing ,they are not able to maximum the output from livestock rearing .As the marginal and small farmers ,they do not have economic ability to establish any type of livestock farm .Marketing is another problem commonly they faced in every stage .Sometimes :hey purchase necessary materials for livestock rearing with high price and in ~any cases and they are deprived to get their actual prices of their products

Available information from the subject specialist is another problem to the rural

'men .All type of necessary medicine was not readily available to the rural

men in time. Normally the rural women do not bear any knowledge on

preventative or curative measures of livestock .Only training can help their

knowledge on the issue of livestock rearing .But training facilities are not available

o the rural women.

Therefore, these problems may influence their participation towards livestock rearing.

1. What is the extent of participation of rural women involved in livestock rearing?

2. What were the characteristics of the rural women?

3. Were there any contribution between their selected characteristics of the rural women and their participation towards livestock rearing?

4. What were the problems faced by the rural women in rearing livestock?

In order to get a clear picture of the above questions the investigator undertook a iy entitled "Rural Women Participation in Livestock Rearing".

1.3 Objectives of the study

Considering the situation the present study was undertaken with the following specific objectives-

1. To determine and describe the rural women participation in livestock rearing

2. To determine and describe some selected characteristics of rural women .The selected Characteristics were as follows:

S Age

- Level of education
- Family size
- Farm size
- Annual family income
- Contact with service provider
- Contact with mass media
- Cosmo politeness
- Extent of helping in family activities
- Problem faced for livestock rearing
- Knowledge about livestock rearing

3. To find out the contribution of selected characteristics of the rural women and their extent of participation in livestock rearing

1.4 Justification of the study

In order to improve the economic condition of rural women of Bangladesh government and non-government organizations are now working in the country .The government and some of the NGO initiated project on livestock , fisheries , housing , credit, saving etc to uplift the socio -economic condition of the rural women .The success of the project depends on the participation of the rural women .Therefore ,the researcher needs to enquire about the participation of rural women .So ,it is logical to investigate about the participation of rural women in livestock rearing .The findings of the study are therefore, expected to be helpful to the researchers , academicians and policy makers who are concerned with of livestock rearing .

1.5 Assumptions of the study

An assumption is the supposition that apparent fact and principle to find out the true in the light of the available evidence (Goode and Hatt, 1952). The following assumptions were in the mind of the researcher while undertaking this study:

1. The selected respondents were capable of furnishing proper responses to the questions contain in the interview schedule and responses furnished by the respondents were valid.

2. Information furnished by the respondents included in the sample was the representative of the whole population of the study area.

3. The researcher who acted as interviewer was well adjusted to the social environment of the study area .Hence; the data collected by him from the respondents were free from bias.

4. The respondents selected for the area were competent enough to the reply the questions made by the investigator.

1.6 Limitation of the study

Considering time, money, and other necessary resources to the researcher and to make the study manageable and meaningful from the research point of view it has become necessary to inflict certain limitation as mentioned below:

1. This study was confined to Masundia Union of Bara Upazilla under Pabna district.

2. There were many women in the study area, but only 100 women were included for the study.

3. The characteristics of the respondents were many in number but only 12 personal and socio-economic characteristics were selected for investigation in this study.

4. The study was limited to three type of livestock namely poultry rearing, goat rearing and cattle rearing.

5. For information about the study, the researcher depended on data as furnished by the selected female respondents during collection of data.

6. There were various aspects of knowledge in the process of livestock rearing .Only livestock breeding, feeding, and prevention and control of diseases had been considered to understand the knowledge of livestock.

7. The findings could be applicable only for the study area and only for the similar situations of physical, socio-economic culture and geographic conditions.

1.7 **Definition of Terms**

Certain key terms used throughout the study are defined in this section for clarify of understanding .For this purpose their definition and interpretation are stated below:

Livestock

The term livestock is used to designate of poultry, goat and cattle which render by human being for an economic service and produce freely under their care.

Grazing land

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

Poultry farmers

Poultry farmers refer to those farmers who are engaged in poultry rearing activities in their families for economic benefit.

Goat farmers

Goat farmers refer to those farmers who are engaged in goat rearing activities in their families for income generation.

Cattle farmers

Cattle farmers refer to those farmers who are engaged in cattle rearing activities in :heir families for additional income.

Production

It refers to the yearly number of livestock that are reproduced,purchased, obtained from donation etc .in a family excluding the number of loss and death.

Cattle, Goat and poultry rearing knowledge

It refers to the basic understanding of the farmers on different cattle, goat and poultry management practices, namely, breeding, feeding, housing, and prevention and disease control.

Breeding

It is the process of reproduction of livestock. **Feeding**

It is the process of supplying ration to livestock for its proper growth, maintenance and reproduction

Problem

Problem means 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 women at the time of livestock rearing.

Prevention of disease -

It is the process of adopting certain precautionary measures in such a way that the livestock will not be affected by a particular kind of disease or disease

Control of disease

It is a process, which involves the use of some methods or techniques to control, elimination and also to prevent the spread of the particular disease and problem existing to the livestock

Age

Age may be defined as the stretch of them between birth and the time of interview. IT is measured in terms of actual years.

Education

Education refers to the development of desirable knowledge, skill and attitude in individual male and female through the experience of reading, writing, observation and other related activities .It is measured in terms of years of formal schooling.

Family size

Family size of the respondents is defined as the number of individuals in the family including herself, her husband ,children ,brother ,sisters and ant other permanent dependents members that live and eat together .

Farm size

It refers to the area owned by farmer including the homestead on which he carried

On her farming and family business, the area being estimated in terms of full

benefit to the farmer .*A* farmer on considered to have full benefit from cultivated

area either owned by himself or obtained on less from others and half benefit from

the area, which was either cultivated by himself on borga or given to others from

cultivation on borga basis.

Family income

It is defined as the total earning of an individual and the members of the family from agriculture and other sources (service, business) during a year .It was expressed in taka.

Contact with service provider

Contact with service provider refers to ones contact in different organization who rrovide any type of service.

Visit to different place

Visit to different place means movement of any one in different place.

Contact with mass media

It refers to the contact with different mass media by the respondent women to acquire information and knowledge regarding livestock rearing.

Extent of helping in family activities

It is defined as ones helping in family related activities .eg .agricultural field activities, storage, livestock rearing processing and marketing of farm product etc.

Participation

Participation means the act of taking Participation means taking part or sharing in : something participation involves the following constituents a)Attunement of other *stock* of knowledge b) Emotional and motivational attunement of the group concern's .c)Taking for granted that one can contribute appropriately. d) Being able : assume that one's identity is not under that.

REVIEW OF LITERATURE

Review of literature is presented in this chapter. This study is mainly related with rural women participation in livestock rearing. The researcher came across with some expert opinions about the concept of participation and has tried her best to collect essential information through searching relevant studies, journal, periodicals, internet etc. These enhanced the researcher's knowledge for better and clear understanding of the present study. This chapter has been presented in four sections as follows:

Section 1: Review of literature related to concept

Section 2: Previous Research studies related to livestock rearing

Section 3: Contribution between selected characteristics of the respondents and their extent of participation in livestock rearing

Section 4: The conceptual framework of the study **2.1 Concept of participation:**

Participation means taking part or sharing in something participation involves the following constituents

A) Attunement of other stock of knowledge

B) Emotional and motivational attunement of the group concern's

C) Taking for granted that one can contribute appropriately

D) Being able to assume that one's identity is not under that.

2.2 **Previous research studies related to livestock rearing**

This study is concerned with the socio-economic study on the livestock rearing .Available literature were extensively reviewed to search out related works carried out in the Sher-e-Bangla University as well as in other places of Bangladesh. But a very few directly related to the present study were found. These are discussed below:

Selvarn (2004) conducted a study hi five villages of Namakkal (Tamil Nadu,India) to find out the economic potential of free-range local rearing by rural women. The farms were post-stratified into small, medium and large categories. The flock sizes ere 5,12 and 26 and egg production for each size was 44,49 and 52 respectively. The sale price of eggs and birds on free range rearing was much higher than the sale price of commercial eggs and broilers.

Kozarova (2002)conducted a study on the prevention and control of coccidiosis r.as been the essential component of successful and profitable poultry rearing. Good management practices and hygiene help to prevent the spread of the diseases. To controlingcoccidiosis, prophylactic medication or vaccination were absolute requirement. Anti-coccidial drugs are routinely and continuously administered in the feed. The main, problems associates with the chemotherapeutic approach to controlling coccidiosis, the emergence of drug-resistant strains and drug residues, - re met by the requirement for the use of vaccines .The vaccines represents a biological approaches to control of a cocccidiosis still remains the most important and expensive disease of poultry production.

Hansen (1992) in conducting a research for Danish breeders are mixed. This uncertainty is mostly due to the likely due to the likely outcome of the GATT negotiations which will liberate the market. The EC reforms, similarly leading to

market liberalization, will have some influence but as the EC subsidies for poultry are low sector will not be harmed any great extent. It is likely, e.g. by looking at developments in the USA that poultry consumption will see a significant growth. However, egg consumption is decreasing.

Mishev (1987) conducted a study on influence on the of scientific and technical innovations on production cost in poultry farming in Bulgaria are discussed for the period 1979-84.Costs of production rose over the period and increased producer prices are recommended to encourage the continuation of these enterprises.

2.3 **Contribution of selected characteristics of the respondents and their extent of participation:**

The reviews related to the selected characteristics of rural farm women and their extent of participation towards poultry rearing is not available. Yet the researcher :ried her best to find out the related reviews, Which were found.

Age and participation in Livestock Rearing:

Chowdhury (2010) found in his study that age had no contribution in their participation.

rker (2006) found that age of the world vision farmers had no significant : ?ntribution in participation.

Mannan (2004) found that age of the Proshika beneficiaries had contribution in r.eir participation

Sarker (1983) observed that age of farmers had no contribution in participation :: wards poultry rearing. Sing (1982) obtained similar type of findings.

Therefore ,the related reviews of literature were sited above regarding participation. Therefore it may be concluded that age may have contribution in participation in poultry rearing.

Education and participation in Livestock rearing:

Sarker (2010) found that education had positive contribution in world Vision's farmer' participation

Mnnam(2008)found that academic qualification of proshika had a contribution in their participation.

Varma& Kumar (1991) reported that there was positive and significant relationship between educations of fanners and their participation.

Kashem(1987) Found that education level of the small farmers had significant contribution in their participation.

Therefore ,the related reviews of literature were sited above regarding participation. Therefore it may be concluded that education may have significant contribution in participation in poultry rearing.

Family size and Participation in Livestock Rearing:

Chowdhury (2003) observed that family size of farmers had no contribution in participation.

Sarker (2002) found that family size had positive contribution in world Vision farmers attitude.

Therefore ,the related reviews of literature were sited above regarding participation. Therefore it may be concluded that family size may have significant contribution in participation in poultry rearing.

Farm size and Participation in Livestock Rearing:

Shehrawat (2002) found in their article farm size had a significant contribution in participation of farmers.

Noor (1995) observed in his study that farm size of the farmer s had no contribution in their participation

Verma and Kumar (1991) found that there was a positive and significant contribution in participation .

Sekar (1983) found that firm size had no significant contribution in participation.

Therefore ,the related reviews of literature were sited above regarding participation. Therefore it may be concluded that firm size may have significant contribution in participation in poultry rearing.

Annual Family Income and Participation in Livestock Rearing:

Chowdhury (2003) found that Annual Family Income had a positive and significant contribution in participation .

Sherwat et al (2002) observed in their article that a significant contribution in their participation.

Islam and Shahidullah (1989) found that annual family income had a significant contribution/in participation.

Therefore , the related reviews of literature were sited above regarding r anticipation. Therefore it may be concluded that annual family income may have significant contribution in participation in poultry rearing.

Contact with service providers and participation in Livestock Rearing:

Sadat (2002) reported in his study that contact with service providers had significant contribution in participation .

Kaur (1988) found that contact with service providers had significant influence upon opinion, level of knowledge and adoption of selected programs of women.

Vidyshanker (1987) revealed that contact with service providers contributed favorably in the participation.

Therefore , the related reviews of literature were sited above regarding participation. Therefore it may be concluded that Contact with service providers may have significant contribution in participation in poultry rearing.

Cosmo/politeness and Participation in Livestock Rearing:

Chowdhury (2003) reported that Cosmo / politeness had positive significant significant contribution in participation of farmers.

Sing and kunzroo (1985) revealed that there was positive and significant significant contribution in participation of farmers and Cosmo politeness.

Therefore, the related reviews of literature were sited above regarding participation. Therefore it may be concluded that Cosmo politeness may have significant contribution in participation in poultry rearing.

Knowledge and Participation in Livestock Rearing:

Haque (2002) found that women more agricultural knowledge have more positive significant participation.

Therefore, the related reviews of literature were sited above regarding participation. Therefore it may be concluded that Knowledge may have significant contribution in participation in poultry rearing.

2.4 The conceptual Frame work of the Study

The conceptual framework was kept in mind framing the structural arrangement for the dependent and independent variables. This study was concerned with the rural women participation in livestock rearing .Rural women participation in livestock rearing dependent variable of the study. Based on the review of literature the conceptual framework of this study has been formulated and shown in figure-

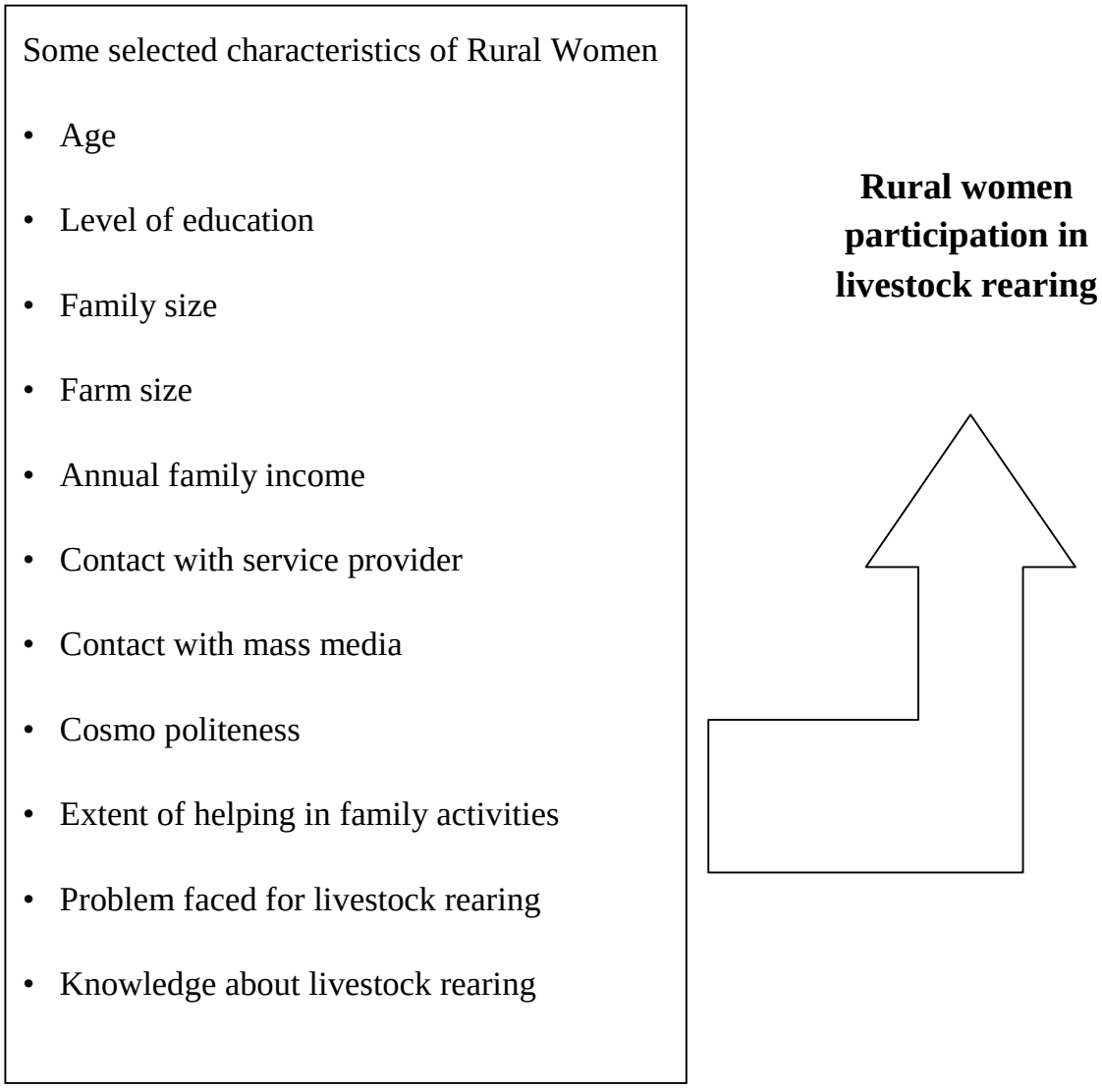

Figure: 2.1 the conceptual framework of the study

METHODOLOGY

Importance of methods and procedures in conducting any research can hardly be over emphasized. Methodology should be such as it would be enable the researcher to collect valid information and to analyze that properly to arrive at correct decisions . Without proper methodology, it is impossible to conduct research work . It requires a very careful consideration on the part of the researcher to collect valid and reliable data and to analyze the same for meaningful conclusion. This chapter delineates the location of the study followed by source of data, the research instrument, collection of data, variables of the study .measurement of variables , categorization of data and statistical treatment. The chapter also spells out the method used to test the hypotheses.

3.1 Location of the study

The study was conducted at Masundia Union of Bera Upazilla under Pabna district.

3.2 Sample size

There were 525 women in the selected three villages which constituted the population of the study .Among the 525 respondent's 19%was selected as a sample size randomly. The following table shows the sample size.

SI NO	Village name	Rural women	Sample size
1-	Masundia	215	41
2	Aminpur	200	38
3	Soiudpur	110	21
TOTAL		525	100

3.3 Variables and their Measurement

The variable is any characteristic, which can assume varying, or different values in successive individual cases (Ezekiel and Fox, 1969).A research work usually contains at least two important variables viz .independent and dependent variable .An independent variable is that factor which is manipulated by the researcher in his attempt to ascertain its relationship to an observed phenomenon .

A dependent variable is that factor which appears, disappears or varies as the researcher introduces, removes or varies the independent variable (Townsend,1953). In the scientific research, the selection and measurement of variable constitute a significant task .In this conception, the researcher reviewed literature to widen this understanding about the natures and scopes of the variables relevant in this research. He also discussed with departmental teacher and concerned researchers of the related fields.

At last she had selected 11 independent variables and one dependent variable .The independent variables were; age of the respondents, education, family size, farm size , annual family income contact with service provider , cosmo politeness , contact with media ,extent of helping different activities ,problem faced on livestock rearing , knowledge on livestock rearing . The dependent variable of this study was rural women participation in livestock rearing .The methods and procedures in measuring these variables are presented below:

3.4 Measurement of independent variables

The 12 characteristics of the respondents mentioned above constitute the independent variables of the study. The following procedures were followed for measuring the independent variables.

3.4.1 Age

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

3.4.2 Education

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

3.4.3 Family Size -

Family size of a respondent was determined on the basis of the total number of —embers in the family .The family members included herself, her husband, sons ' daughters and other dependents .The actual number of family members made the family size score of the respondents . For example, if a respondents had three -.embers in her family, the score of her family size was given as '3'

3.4.4 Farm size

The total area of land of the respondents when they were interviewed was farm size .Farm size of a respondents was measured in terms of hectares by using the following formula:

FS=A1+ A2+ A3+ $^{1}/_{2}$ (A4+ A5)

Where,

FS=Farm size

Al=Home stead area

A2=Own land under own cultivation

A3= Land taken from others on lease

A4=Land taken from others for cultivation on half share basis (borga)

A5=Land given to other for cultivation on half share basis (borga)

3.4.5 Annual family income

This refers to the total earning of all family members of a respondents in a year from agriculture, livestock ,poultry rearing , fisheries serve ice, business and other sources as contained in question

Number 5 of the interview schedule .The total earning in Taka were converted in to family incoming score.

3.4.6 Contact with service provider

Contact with service provider was measured on the basis of the contact of one's participation in the different service providing organizations .scores assigned for a respondent's participation in contact with service providing organization were as follows:

Nature of contact	Scores
Not at all	0
Rarely	1
Occasionally	2
Regularly	3

The score of contact with service provider by women ranged from 0 to 33. While

(0) Indicating no contact with service provider and 33 indicating contact with service provider within her regular basis .

3.4.7 Contact with mass media

Contact with mass media was measured on the basis of the contact of one's participation in the different mass media .such as Radio, Television, Cinema, Newspaper etc. Scores assigned for a respondent's contact with mass media were as follows:

Nature of contact	Scores
Not at all	0
Rarely	1
Occasionally	2
Regularly	3

The score of media contact by women ranged from 0 to 15 While zero(O) indicating no contact and 15 indicating contact with mass media with her range on regular basis.

3.4.7 **Cosmo politeness**

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

Extent of visit	Scores assigned
Not at all	0
Rarely	1
Occasionally	2
Regularly	3

Cosmopoliteness score of an individual could range from 0 to 21.Where 0

indicated no Cosmopoliteness and 21 indicated high Cosmopoliteness.

3.4.9 Extent of helping different family activities

Extent of helping in family activities was measured on the basis of the help of one's participation in the different farming or household activities. Scores assigned for a respondent's in extent of helping in family activities were as follow:

Nature of help	Scores
Not at all	0
Rarely	1
Occasionally	
Regularly	3

The extent score of the respondent could range from 0 to 15 .while zero (0) indicate no help and 15 indicating helping in every task with in her possible range.

3.4.10 Problem faced for livestock rearing

Thirteen problems were selected to measure problem faced by the respondents on livestock rearing .A four point rating scale was used for each problem . Four alternative responses were very low problem, low problem, medium problem, high problem the weight were assigned to these responses as 1,2,3,4 respectively. The score of problem faced on different livestock rearing of the women ranged from. 1 :o 52 .While (1 to 10) indicating vary low problem and above 32 indicating high problem faced.

3.4.11 knowledge on livestock rearing

Livestock rearing knowledge of a respondent was measured by computing a score : r. basis of her responses to thirteen questions. Each question had assigned 2 marks. 7?r correct answer to a question, a respondent could get a score of 2. Otherwise for •'••Tong answer to a question she could get a score of zero (O).For partial correct nswer, scores of one was assigned.

Knowledge score of the farmers on ranged from 1 to 26 while *Ito7* indicate low rvel knowledge and above 15 indicate high knowledge.

3.5 Measurement of dependent variable

Rural women participation in livestock rearing was the only dependent variable of Lie study. The procedure for measuring the dependent variable was as follow:

Rural women participation in livestock rearing:

Participation in livestock rearing of a respondent was measured on the basis of 12 "-Cements.

Participation in livestock rearing score of a respondent was determined by summing the weights for her responses to all the 12 statement .Participation in livestock rearing score of the respondents could range from 0 to 36 .While zero (0) indicating no participation and above 20 indicate high participation.

3.6 Hypothesis of the study

Goode and Hart (1952)defined hypothesisas 'proposition which can be put to a test to determine its validity'. It may prove to be correct or incorrect in any event, however, it leads to empirical test. In the present study the following null hypothesis were formulated:

'There is contribution of the selected characteristics (Age, education, Family size, farm size, Annual family income, contact with service provider, Contact with mass media, Cosmopoliteness, helping in family activities, problem faced for livestock -earing and knowledge on livestock rearing) of women in participation in livestock rearing.

3.7 **Collection of data**

The investigator herself collected data for this study with the help of interview schedule that was pre-tested .A copy of the interview schedule has been presented in Appendix -1 .Interviews were made individually in the houses of the respondents .The researcher took all possible care to establish rapport with the respondents so that the respondents do not hesitate to furnish proper responses to the questions and statement .For the study data were collected during 2016 February.

3.8 Data processing and analysis

For data processing and analysis the following steps followed:

3.8.1 Compilation of data

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

3.8.2. Categorization of respondents

For describing the various independent and dependent variables the respondents ere classified in to various categories. In developing categories the researcher • as guided by the nature of data and general consideration prevailing on the social system.

3.9 Data analysis

The data were coded and tabulated for the purpose of analysis .The analysis was performed using statistical treatment with SPSS version 11.5 computer package ::3gram.

Multiple regression coefficients was used in order to assess the contribution to participation in livestock rearing.

CHAPETR IV

RESULTE AND DISCUSSION

In this Chapter, the findings of the study and its interpretation are presented in two sections in accordance with the objectives of the study. The first section deals with rural woman participation in livestock rearing and the second section deals with the relationships between the selected characteristics of the women and their participation in livestock rearing.

4.1 Selected characteristics of the farmers

In the study, there were 12 selected characteristics of the farmers such as age, education, family size, farm size, annual income, contact with service provider, contact with media, cosmopoliteness, extent of helping different activities, problems faced on livestock rearing, knowledge rearing and rural women participation in livestock rearing. The composite findings of the selected characteristics of rural woman participation in livestock rearing are presented and have been discussed in subsequent sections. The selected characteristics which were the independent variables of the study were investigated and the descriptions of each of the individual characteristics are presented in Table 1

Table 1. Characteristics profile of the respondents farmer

Sl no	Characteristics (with measuring unit)	Measuring Unit	Range		Mean	Standard deviation
			Possible	Observed	Study group	Study group
01	Age	Year	Unknown	22-60	38.67	9.896
02	Education	Year of schooling	Unknown	0-12	3.73	3.452
03	Family size	score	Unknown	3-13	6.48	2.148
04	Farm size	ha	Unknown	0.01-3.25	2.20	0.804
05	Annual family income	'000' taka	Unknown	40-160	103.67	34.307
06	Contact with service provider	score	0-15	0-9	3.25	2.350
07	Cosmopoliteness	Score	0-21	0-9	4.33	2.292
08	Contact with media	score	0-15	0-7	2.08	2.003
09	Extent of helping different activities	score	0-15	3-9	4.97	1.605
10	Problem faced on livestock rearing	score	1-52	7-39	15.52	6.955
11	Knowledge on livestock rearing	score	1-26	7-15	10.04	1.814
12	Rural women participation in livestock rearing	score	0-36	7-25	11.71	3.523

4.1.1 Age

The age score of the ‘rural woman participation in livestock rearing’ women ranged from 22 to 60 with a mean and standard deviation of 38.67 and 9.896, respectively. Women were classified into three categories namely ‘young (up to 30)’, ‘middle (31-50)’ and ‘old (above 50)’ based on their observed age (Akter, 2007). The distribution of the respondents of the study in accordance with their age scoreis presented in Table 2.

Table 2. Distribution of the respondents according to their age

Categories (Years)	Respondents Number	Percent	Mean	Standard deviation
Young (up to 30)	21	21.0		
Middle (31-50)	64	64.0	38.67	9.896
Old (>50)	15	15.0		
Total	100	100		

Data contained in the Table 2 indicate that the highest proportion of women participation in adoption practices belonged to middle aged category (64.0 %) followed by young (21.0 %) and old (15.0 %). Data also indicate that a total 85.0 % of there pendants were young to middle aged. The young and middle aged women were generally tended to involve with different new innovations than the older.

4.1.2 Education

The level of education score of women ranged from 0 to 12 with a mean and standard deviation of 3.73 and 3.452, respectively. Based on the educational scores, women were classified into four categories such as illiterate (0), can sign only (0.5), primary education (1 to 5) and secondary education (6 to 10) (Akter, 2000). The distribution of the women according to their level of education are presented in Table 3.

Table 3. Distribution of the respondents according to their education

Categories (Years)	Respondents number	Percent	Mean	Standard deviation
Illiterate (0)	28	28.0		
Can sign only (0.5)	24	24.0		
Primary education (1-5)	15	15.0	3.73	3.452
Secondary education (6-10)	16	16.0		
Higher education (11 and above)	17	17.0		
Total	100	100		

Table 3 indicate that women under 'illiterate' constitute the highest proportion (28.0 %) compared to 24.0 % 'can sign only', 17.0 % higher education, 16.0 % secondary education and 15.0 % primary education each. The average literacy rate of the country is 61% (BBS, 2014). The people of the locality have more interest in education which is reflected in their literacy level because it is higher than the national literacy rate.

4.1.3 Family size

The score of family size of the women ranged from 3 to 13 with a mean and standard deviation of 6.48 and 2.148, respectively. Family size of farmers were classified into three categories namely 'small (2-4)', 'medium (5-8)' and 'Large (above 8)' based on their observed family size (Akter, 2007). The distribution of the respondents in accordance with their family size are presented in Table 4.

Table 4. Distribution of the respondents according to their family size

Categories (No. of members)	Respondents number	Percent	Mean	Standard deviation
Small family (1-4)	27	27.0		
Medium family (5-8)	51	51.0	6.48	2.148
Large family (>8)	22	22.0		
Total	100	100		

Table 4 indicate that size of the highest proportion of 'rural woman participation in livestock rearing' fell under small family medium category (51.0 %) followed by small (27.0 %) and large (22.0 %). Data also indicate that a total 78.0 % respondent belongs to the group of small to medium family group. Data indicate that the average family size (6.44) was higher than the national average of 5.60 (BBS, 2014). The women with large family member has more economic pressure, whereas, the medium and small families have less agricultural labor than the large families.

4.1.4 Farm size

The score farm size of the 'rural woman participation in livestock rearing' women ranged from 0.01 to 3.25 with a mean and standard deviation of 2.20 and 0.804, respectively. Based on the farm size, score the respondents were classified into three categories following the given categorization of DAE (1995). These categories were 'small farm (0.01-1)', 'medium farm (1.01-3.00 ha)' and 'large farm (>3.00)' (Akter, 2007). The distribution of the respondents in accordance with their farm size are presented in Table 5.

Table 5. Distribution of the respondents according to their farm size

Categories (Hectare)	Respondents number	Percent	Mean	Standard deviation
Small farm (0.01-1)	48	48.0		
Medium farm (1.01-3.00)	27	27.0	2.20	0.804
Large farm (> 3.00)	25	25.0		
Total	100	100		

Table 5 indicates that the small farm holder constitute the highest proportion 48.0 % followed by 27.0 % as medium farm and 25.0 % as small farm holder. The findings of the study revealed that majority of the women were small sized farm holder. The average farm size of the respondents was 2.15 hectares which is about farm size lower than national average (2.20 ha) (BBS, 2014). The findings of the study revealed that majority of the farmers were small to medium sized farm holder.

4.1.5 Annual income

The score of annual income by women ranged from 40 to 160 with a mean and standard deviation of 103.67 and 34.307, respectively. Based on the annual income, the respondents were classified into three categories namely 'low income (1-75)', 'medium contact (76-125)' and 'high contact (above 125)' (Akter, 2007). The distribution of the respondents in accordance with their annual income are presented in Table 6.

Table 6. Distribution of the respondents according to their family annual income

Categories (000 tk)	Respondents number	Percent	Mean	Standard deviation
Low income (1-75)	43	43.0		
Medium income (76-125)	34	34.0	103.67	34.307
High income (> 125)	23	23.0		
Total	100	100		

Table 6 indicate that the women belonged to low income category constituted the highest proportion (43.0 %) followed by medium income (34.0 %) and high income (23.0 %). The average annual income of the respondents was 1,08,790 taka which is about annual income lower than national average (1,03,670 taka) (BBS, 2015). The results indicate that the women annual income was low to medium.

4.1.6 Contact with service provider

The score of contact with service provider by women ranged from 0 to 15 with a mean and standard deviation of 3.25 and 2.350, respectively. Based on the contact with service provider, the respondent women were classified into three categories namely 'low experience (0-5)', 'medium experience (6-10)' and 'high experience (above 10)'.The distribution of the respondents in accordance with their contact with service provider are presented in Table 7.

Table 7. Distribution of the respondents according to their contact with different service provider

Categories (Score)	Respondents number	Percent	Mean	Standard deviation
Low contact (1-5)	52	52.0		
Medium contact (6-10)	48	48.0	3.25	2.350
High contact (>10)	0.0	0.0		
Total	100	100		

Table 7 indicate that the women belonged to low contact with service provider category constituted the highest proportion (52.0 %) followed by medium contact (48.0 %), high contact (0.0 %). The results indicate that the women contact with service provider was low to medium contact.

4.1.7 cosmopoliteness

The score of cosmopoliteness of the women ranged from 0 to 21 with a mean and standard deviation of 4.33 and 2.292, respectively against the possible range. Women were classified into four categories such as 'No visit (0)', 'low visit (1-6)', 'medium visit (7-12)' and 'high visit (above 12)' members based on their observed cosmopoliteness score. The distribution of the respondents in accordance with their cosmopoliteness are presented in Table 8.

Table 8. Distribution of the respondents according to their cosmopolitaness

Categories (Score)	Respondents number	Percent	Mean	Standard deviation
No visit (0)	0	0.0		
Low visit (1-6)	33	33.0		
Medium visit (7-12)	61	61.0	4.33	2.292
High visit (above 12)	6	6.0		
Total	118	100		

Table 8 indicates that the majority of the women belonged to medium visit category classified highest proportion (61.0 %) followed by (33.0 %) low visit, (6.0 %) high visit and (0.0 %) no visit. Data also indicate that a total 94.0 % respondent belongs to the group of low to medium visit.

4.1.8 Media Contact

The score of media contact by women ranged from 0 to 7 against the possible range of 0-15 with a mean and standard deviation of 2.08 and 2.003, respectively. Based on the media contact, the respondents were classified into four categories namely 'no contact (0)', 'low contact (1-5)', 'medium contact (6-10)' and 'high contact (above 10)'.The distribution of the respondents in accordance with their media contact are presented in Table 9.

Table 9. Distribution of the respondents according to their contact with mass media

Categories (Score)	Respondents number	Percent	Mean	Standard deviation
No contact (0)	0	0.0		
Low contact (1-5)	24	24.0		
Medium contact (6-10)	56	56.0	2.08	2.003
High contact (>10)	20	20.0		
Total	100	100		

Table 9 indicate that the women belonged to medium contact with development workers category constituted the highest proportion (56.00 %) followed by low contact (24.0 %), high contact (20.0 %) and no contact (0.0 %). The results indicate that the women media contact with minimum frequency although they have medium contact.

4.1.9 Extent of helping different family activities

The score of extent of helping different family activities of the women ranged from 0 to 15 with a mean and standard deviation of 4.97 and 1.605, respectively against the possible range. Women were classified into three categories such as 'low help (1-5)', 'medium help (6-10)' and 'high help (above 10)' members based on their observed personal saving score. The distribution of the respondents in accordance with their extent of helping different family activities are presented in Table 10.

Table 10. Distribution of the respondents according to their extent of helping different family activities

Categories (Score)	Respondents number	Percent	Mean	Standard deviation
Low help (1-5)	17	17.0		
Medium help (6-10)	81	81.0	4.97	1.605
High help (>10)	2	2.0		
Total	118	100		

Table 10 indicates that the majority of the women belonged to medium help category classified highest proportion (81.0 %) followed by (17.0 %) as low help and (2.0 %) as high help. Data also indicate that a total 98.0 % respondent belongs to the group of low and medium help.

4.1.10 Problem faced on different livestock rearing

The score of problem faced on different livestock rearing of the women ranged from 1 to 52 with a mean and standard deviation of 15.52 and 6.955, respectively against the possible range. Women were classified into four categories such as 'very low problem (1-10)', 'low problem (11-20)', 'medium problem (21-32)' and 'high problem (above 32)' members based on their observed personal saving score. The distribution of the respondents in accordance with their problem faced on different livestock rearing are presented in Table 11.

Table 11. Distribution of the respondents according to their problem faced on different livestock rearing

Categories (No. of days)	Respondents number	Percent	Mean	Standard deviation
Very low problem (1-10)	6	6.0		
Low problem (11-20)	35	35.0	15.52	6.955
Medium problem (21-32)	48	48.0		
High problem (above 32)	11	11.0		
Total	118	100		

Table 11 indicates that the majority of the women belonged to medium problem category classified highest proportion (48.0 %) followed by (35.0 %) as low problem, (11.0 %) as high problem and (6.0 %) as very low problem. Data also indicate that a total 83.0 % respondent belongs to the group of low and medium problem.

4.1.11 Knowledge on livestock rearing

Knowledge of women on 'rural woman participation in livestock rearing' was measured on the basis of 13 questions. Knowledge score of a respondent was determined by adding the scores obtained by her from all the questions. Thus, knowledge score of the farmers on ranged from 1 to 7 indicate low level knowledge, 8 to 15 indicate medium level knowledge and above 15 indicate high knowledge towards. The findings are presented in Table 12.

Table 12. Distribution of the respondents according to their knowledge on livestock rearing

Categories (Score)	Respondents number	Percent	Mean	Standard deviation
Low knowledge (1-7)	28	28.0		
Medium knowledge (8-15)	68	68.0	10.04	1.814
High knowledge (>15)	4	4.0		
Total	100	100		

The score of knowledge of the respondents ranged from 7 to 15 against possible range with a mean and standard deviation of 10.04 and 1.814, respectively. Table 8 indicate that the medium level knowledge group was the highest proportion (68.0 %) of the respondents followed by low knowledge group (28.0 %) and high level knowledge group (4.0 %). Among the respondent women, a total of 96.0 % respondent farmers have low to medium knowledge group.

4.1.12 Participation in livestock rearing

The score of participation in livestock rearing by 'rural woman participation in livestock rearing' women ranged from the possible range of 1-36 with a mean and standard deviation of 16.67 and 7.491, respectively. Based on the participation of livestock rearing, the respondents were classified into four categories namely 'no participation (0)', 'low participation (1-10)', 'medium participation (11-20)' and 'high participation (above 20)'.The distribution of the respondents in accordance with their participation of livestock rearing are presented in Table 13.

Table 13. Distribution of the respondents according to their rural women in participating in livestock rearing

Categories (Score)	Respondents number	Percent	Mean	Standard deviation
No participation (0)	16	16.0		
Low participation (1-10)	32	32.0		
Medium participation (11-20)	43	43.0	11.71	3.523
High participation (>20)	9	9.0		
Total	118	100		

Table 13 indicate that the women belonged to medium participation category constituted the highest proportion (43.0 %) followed by low participation (32.0 %), no participation (16.0 %) and high participation (9.0 %). Among the respondent women, a total of 75.0 % respondent farmers have low to medium participation group.

4.2 The relationships between the selected characteristics of the women and their participation in livestock rearing

In order to estimate the women participation in livestock rearing from the independent variables, multiple regression analysis was used which is shown in the Table 14.

Table 14. Multiple regression coefficients of contributing variables related to Participation in decision making process

Dependent variable	Independent variables	B	*p*	R^2	Adj. R^2	F	*p*
	Age	0.186	0.051				
	Education	0.004	0.004**				
Rural women participation in livestock rearing	Family size	0.396	0.223				
	Farm size	0.160	0.037*				
	Annual family income	0.216	0.102				
	Contact with service provider	0.095	0.015*	0.312	0.281	3.582	0.003***
	Contact with mass media	0.240	0.136				
	Cosmopoliteness	0.305	0.198				
	Helping in family activities	0.212	.006**				
	Problem faced for livestock rearing	0.099	.026*				
	Knowledge on livestock rearing	0.007	0.002**				

** Significant at p<0.01 * Significant at p<0.05 *** Significant at p<0.1

The data in Table 14 test the final null hypothesis: There is contribution of the selected characteristics (education, farm size, contact with service provider, helping in family activities, problem faced for livestock rearing and knowledge on livestock rearing) of women in participation in livestock rearing.

In order to assess which factors contribute to participation in livestock rearing, multiple regression analysis was used. Table 14 shows that contact with farm size, service provider, problem faced for livestock rearing and knowledge on livestock rearing were also the important contributing factors (significant at the 5% level of significance) while education, helping of family activities are also significant at the 10% level of significance.

31.2% (R^2 = 0.312) of the variation in the respondents' changed participation can be attributed to their farm size, service provider, problem faced for livestock rearing and knowledge on livestock rearing (Table 14). The F value indicates that the model is significant ($p<0.003$).

However, each predictor may explain some of the variance in respondents' participation conditions simply by chance. The adjusted R-square value penalizes the addition of extraneous predictors in the model, but values of 0.281 still show that the variance in respondents' participation can be attributed to the predictor variables rather than by chance, and that both are suitable models (Table 14). In summary, the models suggest that the respective authority should consider age, education, farm size, service provider, problem faced for livestock rearing and knowledge on livestock rearing.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The study would conduct to Masundia Union of Bera Upazilla under Pabna district. Among the total women of Masundia Union 100 were selected from 3 villages . A well structured interview schedule was developed based on objectives of the study for collecting information . The researcher herself was collect data from the sample respondents through personal contact .The independent variables are age ,education, family size ,farm size ,income $_o$f the respondents family ,contact with service provider ,contact with mass media ,extent of helping in family activities ,knowledge hi livestock rearing ,problem faced for livestock rearing . The dependent variable of the study was participation in livestock rearing .Data collected from the respondents were compiled, coded , tabulated and analyzed in accordance with the objectives of the study .In order to assess which factors contribute to participation in livestock rearing , multiple regression analysis was used .The major findings of the study are summarized below:

5.1 Summary of findings

5.1.1 Characteristics of the respondents

Age

The age of the rural women ranged from 22 to 60 with a mean and standard deviation of 38.67 and 9.896, respectively. The middle aged rural women constitute the highest proportion (64.0%) followed by young (21.o%) and old (15%).

Education level

The level of education ranged from o to 12 with a mean and standard deviation of 3.73 and 3.452, respectively .rural women under 'illiterate' constitute the highest proportion (28.0%) compared to 24.0% can sign only .17.0% higher education, 16.0% secondary education and 15.0% primary education each .

Family size

The family size of the women ranged from 3 to 13 with a mean and standard deviation of 6.48 and 2.148, respectively .The medium family category (51.0 %) followed by small(27.0%) and large(22.0%).

Farm size

The farm size of the rural women ranged from 0.01 to 3.25 with a mean and standard deviation of 2.20 and 0.804,respectively .The small farm holder constitute the highest proportion 48.0% followed by 27.0% as medium farm and 25.0% as small farm holder.

Annual income

The annual income by women ranged from 40 to 160 with a mean and standard deviation of 103.67 and 34.307, respectively .The women belonged to low income category constituted the highest proportion (43.0%) followed by medium income (34.0%) and high income (23.0%).

Contact with service provider

Contact with service provider by women ranged from 0 to 33 with a mean and standard deviation of 3.25 and 2.350, respectively. The women belonged to low

Contact with service provider category constituted the highest proportion (52.0%) followed by medium contact (48. 0%),high contact (0.0).

Cosmo politeness

Cosmo politeness of the women ranged from 0 to 21 with a mean and standard deviation of 4.33 and 2.292, respectively .The majority of the women belonged to medium visit categories classified highest proportion (61.0%) followed by (33.0%) low visit, (6.0%) high visit and (0.0%) no visit.

Contact with mass media

The media contact by women ranged from o to 7 against the possible range of 0-15 with a mean and standard deviation of 2.08 and 2.003, respectively .The women belonged to medium contact constitute the highest proportion (56.00%) followed by low contact (24.0%) ,high contact (20.0%) and no contact (0.0%).

Extent of helping different family activities

The extent of helping different family activities of the women ranged from o to 15 with a mean and standard deviation of 4.97 and 1.607, respectively .The women belongs to medium help category constitute the highest proportion (81.0%) followed by (17.0%) as low help and (2.0%) as high help .

Problem faced on different livestock rearing

The problem faced on different livestock rearing of the women ranged from 1 to 52 with a mean and standard deviation of 15.52 and 6.955, respectively .The majority of the women belonged to medium problem category classified highest proportion (48.0%) followed by (35.0%) as low problem, (11.0%) as high problem and (6.0%) as low problem.

Knowledge on livestock rearing

Knowledge of the women on ranged from 1 to 26 against possible ranged with a mean and standard deviation of 10.04 and 1.814, respectively .The medium level knowledge group was the highest proportion (68.0%) of the respondents followed by low knowledge group (28.%) and high level knowledge group (4.0%).

5.1.2 Rural women participation in livestock rearing

Participation in livestock rearing women ranged from the possible range of 0-36 with a mean and standard deviation of 11.71 and 3.523, respectively. The women belonged to medium participation category constituted the highest proportion (43.0%) followed by low participation (32.0%),no participation (16.0%) and high participation(9.0%).

5.2 **Conclusion**

On the basis of the findings of this study and their interpretation in the light of other relevant factors the following conclusions are drawn:

1. Age was insignificantly contributed to participation in livestock rearing .This fact leads to the conclusion that age is not an important factor that influence rural women participation in livestock rearing.

2. Education had highly significant contribution to the participation in livestock rearing of the rural women .This fact leads to the conclusion that education level of the respondents would definitely be helpful to increase their participation in livestock rearing.

3.family size was insignificantly contributed to participation in livestock rearing

This fact leads to the conclusion that family size is not an important factor that influence rural women participation in livestock rearing.

4. Farm size was significant contribution to the participation in livestock rearing of the rural women. This fact leads to the conclusion that farm size of the respondents would be helpful to increase their participation in livestock rearing.

5 family income of the respondents had insignificant contribution in their extent of participation in livestock rearing. This fact leads to the conclusion that family income is not an important factor that influences rural women participation in livestock rearing.

6 Contact with service provider had significant contribution to the participation in livestock rearing of the rural women. This fact leads to the conclusion that contact with service provider of the respondents would be helpful to increase their participation in livestock rearing.

7. contact with mass media was insignificantly contributed to participation in livestock rearing. This fact leads to the conclusion that mass media is not an important factor that influence rural women participation in livestock rearing.

8. Cosmo politeness was insignificantly contributed to participation in livestock rearing. This fact leads to the conclusion that Cosmo politeness is not an important factor that influence rural women participation in livestock rearing.

9.Extent of helping in family activities had highly significant contribution to participation in livestock rearing .About eighty one percent (81.0%) of the respondents was medium extent of helping. Therefore, it may be concluded to increase the extent of helping could increase participation in livestock rearing.

10.Findings revealed that majority (83%) of the respondents faced low and medium problem in livestock rearing . Problem faced in livestock rearing had negative significant contribution to the participation in livestock rearing. Therefore, it may be concluded that any arrangement made to decrease problem faced in livestock rearing could increase to make favorable participation in livestock rearing.

11 .Knowledge had more significant contribution to the participation in livestock rearing .This represent that knowledge of the rural women was an important factor in participation in livestock rearing and with the increase of knowledge of the respondent's participation towards livestock rearing increases

5.3 Recommendations

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

1. Education had more significant contribution with the participation in livestock rearing .So, it is necessary to increase their education level.

2. Farm size of the respondents had significant contribution with their extent of participation in livestock rearing. So, it is necessary to increase their farm size.

3. Contact with service provider of the respondents had significant contribution with their extent of participation in livestock rearing. So, it is necessary to increase Contact with service provider.

4. Extent of helping in family activities was more important factor to increase participation in livestock rearing .So, it is necessary to increase the suitable condition for increasing the level of helping family members.

5. Findings revealed that the majority of the respondents faced low to medium problem in livestock. So, it is necessary to minimize their problem to increase participation in livestock rearing.

6. Knowledge on livestock rearing was more important factor to increase favorable participation in livestock rearing. So, we need to gather more knowledge to increase participation in livestock rearing.

Recommendations for policy implication:

1. This study was conducted only at Masundia UnioninBeraUpazilla under Pabna district. It is essential to make scope for further study in other places to justify the findings of the present study.

2. The investigations explore the contribution of the 12 selected characteristics of the respondents with their extent of participation Further research may be conducted to explore contribution of other characteristics of the respondents with their extent of participation in livestock rearing .

3. Further research may be conducted on the beneficiaries of other NGOs or mass people.

4. Finding indicate that there was negligible contribution of age, family size, family income, contact with mass media , Cosmo politeness .with their extent of participation. Further research is necessary to verify such contributions.

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APPENDIX-I

English Version of the Interview Schedule

Department of Agricultural Extension and Information System

Sher-e-Bangla Agricultural University

Dhaka-1207

Interview schedule for data collection for the research on

''RURAL WOMAN PARTICIPATION IN LIVESTOCK REARING AT MASUNDIA UPAZILA UNDER PABNA DISTRICT''

(Please answer the following questions and put-check mark whenever applicable)

Respondent No:……

Name of the respondent:……Father's name/Husband name……..Village:……

Union……Upazila:…….District……

Please answer the following question

1. **Age**

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

2. Level of education

Please mention your level of education

1. Can not read and write

2. Can sign only

3. i) From class 1 to 5…..is primary

ii) From class 6 to SSC……is secondary

iii) Up to HSC……..is higher secondary

3. Family size

Please mention the number of your family members……..Number

4. Farm size:

SI NO	**Type of land use**	**Area of land**	
		Local unit	Hectare
1.	Homestead		
2.	Own land under own cultivation		
3.	Land given to others on barge		
4.	Land taken from others on barge		
5.	Land taken from others on lease		
6.	Pond		
7.	Orchard		
	Total		

5. Annual family income

Please mentionyour and your family members annual income from different sources

Income from Agricultural crops

SI NO	Crop name	Production(Kg or Mound)	Cost/Kg or Mound	Total Cost(TK)
	Rice			
2.	Wheat			
3.	Potato			
4.	Pulse crops			
5.	Oil crops			
6.	Vegetables			
7.	Fruits			
Total				

Income from domestic animals and fish resources

SI NO	Income resources	Total Production(Kg or Number)	Cost/Unit(TK)	Total Cost(TK)
1	Cattle,Goat,Sheep			
2	Poultry			
3	Fish resources			
Total				

Income from other resources

SL NO	**Income resources**	**Total Income(TK)**
1.	Service	
2.	Business	
3.	Day labor	
4.	Other family members	
Total		

6. Contact with service providers

Mention the extent of contact with different service provider

SI NO	Service providing organization	Extent of contact with service providing organization			
		Regularly	Occasionally	Rarely	Not At all
1.	Livestock Office time/year	8 or more	4-5	2-3	0
2.	Fisheries Office time/year	5 or more	3-4	1-2	o
3.	CO-operative Office time/year	5 or more	2-3	1-2	o
4.	Social Welfare Office time/year	4 or more	2-3	1-0	o
5.	NGOs, Bank ,Insurance time/year	4 or more	2-3	1-0	o

Mention the extent of visit in different place

	Service providing organization	Extent of visit different places			
		Regularly	Occasionally	Rarely	Not At all
1.	Local market				
2.	Other villages				
3.	Other unions				
4.	Own upazila				
5.	Own district				
6.	Other district				

7. Contact with mass media

SI NO	Service providing organization	Extent of contact with mass media			
		Regularly	Occasionally	Rarely	Not at all
1.	Television time/weeks				
2.	Radio time/weeks				
3.	Newspaper time/month				
4.	Observe poster time/month				
5.	Agricultural village fair time/month				

8. Cosmopoliteness

(Please indicate how frequently you visit the following places with a specific period:

	Place of visit	Frequency of visit			
		Regularly	Occasionally	Rarely	Not At all
1.	Visit of market/familiar home outside of your own village	>7 times/month	4-6 times/month	1-3 times/month	0 times/month
2.	Visit of relatives/friends	>5 times/month	3-4 times/month	1-2 times/month	0 times/month
3.	Visit to upazilasadder	>5 times/month	3-4 times/month	1-2 times/month	0 times/month
4.	Visit to other upazilasadder	>4 times/month	3-4 times/month	1-2 times/month	0 times/month
5.	Visit to upazila agricultural officer	>4 times/month	2-3 times/month	Once/year	0 times/month
6.	Visit to upazila/district agricultural fair	>4times/month	3-4 times/month	1-2 times/month	0 times/month
7.	Meeting livestock protection specialist	3-4 times/month	2-3 times/month	1-2 times/month	0 times/months

9. Extent of helping in different family activities

SI NO	Activities	Extent of help			
		Regularly	Occasionally	Rarely	Not At all
1.	Agricultural field activities				
2.	Storage of agricultural products				
3.	Livestock rearing				
4.	Processing of farm product				
5.	Marketing of farm product				

10. Problem faced for livestock rearing

	problems	Extent of problem facing			
		Very low	low	medium	high
1.	Unavailability of credit				
2.	Lack of knowledge about livestock rearing				
3.	Unavailability of doctors facilities				
4.	Lack of knowledge about diseases				
5.	Lack of proper training				
6.	Lack of economic support from family				
7.	Lack of medicines				
8	Gender discrimination				
9	Communication gap with development workers				
10	Doubt about the effectiveness of livestock rearing				
11.	Lack of propermarketing system				
12.	Shortage of HYV breed				
13.	Lack of vaccination and proper treatment				

11. Knowledge about livestock rearing

Please answer the following questions:

SI NO	Questions	Score	
		Assigned score	Obtained mark
1.	What are the reason of livestockrearing		
2.	Name twomethods of livestock rearing		
3.	Name twotypes of feeding of livestock rearing		
4.	In which way of keeping the house of livestock free from diseases		
5.	What step should be taken after death of livestock		
6.	Name five disease of livestock		
7.	Do you know how to prevent of disease		
8.	Mention the optimum time for feeding them		
9.	Mention two improved breed of cattle,goat ,poultry		
10.	In which part of the homestead area used for livestock rearing		
11.	What is your income from livestock rearing		
12.	Do you think that it is profitable or not		
13.	When you get more price by selling meat, milk and egg		

12. Rural woman participation in livestock rearing

Please indicate your extent of participation in the following items of livestock rearing

SI NO	Item/operation	Extent of participation			
		Regularly	Occasionally	Rarely	Not at all
1.	Collection of cattle,goat breed				
2.	Cattle and goat shed management				
3.	Feeding calf				
4.	Vaccination and treatment				
5.	Selling meat and milk in the market				
6.	Collection of chicken				
7.	Poultry shed management				
8.	Feeding poultry bird				
9.	Selling of egg				
10.	Income from by-product				
11.	Caring of livestock				
12.	Managing Labor				

Thanks for your co-operation.

Signature of the interviewer with date

……..

CORRELATION MATRIX SHOWING THE INTERRELATION SHIP AMONG THE VARIABLES

N-100

Characters	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	Y
X1	1											
X2	.027	1										
X3	.011	-.063	1									
X4	.165	-.073	.076	1								
X5	.073	-.008	.0160	.069	1							
X6	.046	-.135	.028	.049	-.021	1						
X7	.161	-.144	.003	.235	-.014	.091	1					
X8	.038	-.095	-.094	-.024	-.219	.067	-.090	1				
X9	.104	-.187	.051	.071	.023	.029	-.080	.104	1			
X10	.160	.092	.094	.012	.055	.093	.036	-.080	-.077	1		
X11	-.070	.025	.035	-.244	-.034	-.054	-.066	-.091	-.030	-.061	1	
Y	.170	.082	.031	.023	.103	.029	.131	.166	.309**	-.286**	0.063	1

X1= Age, X2= Education, X3= Family size, X4= Farm size, X5= Annual family income, X6= Contact with service provider, X7= Contact with mass media, X8= Cosmo politeness, X9= Family helping activities, X10= Problem faced for livestock rearing, X11= Knowledge about livestock rearing, Y= Rural women participation in livestock rearing