

## Attitude of Rural Women towards Livestock Rearing and Associated Problem Confrontation in Sadar Upazila of Magura District

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### Abstract

The study examined the attitude of rural women towards livestock rearing and estimated the contribution of the selected characteristics of the rural women to their attitude towards livestock rearing. It was an integration of quantitative and qualitative data collected from six villages in two unions under sadar upazila of Magura district. Data were collected from 118 rural women during January 20 to February 20, 2017 by using a structured interview schedule. Descriptive statistics, multiple regression were used for analysis. Most of the rural women (66.1 percent) were found with moderately favorable attitude towards livestock rearing while 13.6 and 20.3 percent of them had highly favorable and unfavorable attitude towards livestock rearing. Among the selected characteristics of rural women education, livestock rearing experience, usages of mass media, training exposure, livestock management practices, financial facilities, and knowledge on livestock rearing were significant contributor and had 63.1 percent contribution on rural women's attitude towards livestock rearing. Majority (71.2 percent) of rural women faced medium problems on livestock rearing. It was observed that out of twelve selected problems on livestock rearing, 'lack of grazing land' positioned the first rank, 'shortage of medicines' ranked 2<sup>nd</sup>, 'lack of proper training' ranked 3<sup>rd</sup> and 'subsequently environmental hazards' ranked last position. Therefore, effective step should be taken by the Department of Livestock Services (DLS), concerned Non-Government Organizations (NGOs) and other concerned authorities to improve the personal characteristics of the rural women and also take necessary actions to solve the identified problems of livestock rearing. Steps may be massive demonstration programs, training programs, field trips, ensure quality inputs etc.

**Keywords:** Attitude, rural women, livestock rearing, problem facing index

### Introduction

Women play an increasingly important role in agriculture and rural development both at national and international levels. Due to potential contribution to the reduction of poverty, increased food security and enhanced environmental sustainability, female economic activity in agriculture has snatched special attention (Muller, 1989). Over half of the world's food is produced by women (Johnson, 1998) and they contribute to half of the total labour force in agriculture (Das, 1995; FAO, 2006). Women are involved exclusively in agricultural operation all over the world. A convincing body of research literature documented that participation of rural

women in various agricultural activities having complementary roles, sharing activities related to crop production, livestock production and management, fish farming and forest management with their male counterpart (Franzel and Helen, 1992; Saito and Spurling, 1992; Sharma et al., 1997; Oyesola, 2004). In some parts of the world, their involvement in agricultural activities is even higher than that of men (Prakash, 2003; Tacio, 2003). Currently rural women in Bangladesh have an anchoring role in the management of their families as well as participation in different income generating activities like crop production,

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livestock and poultry rearing, aquaculture etc. (Hoque and Itohara, 2008; Al-amin, 2008; ADB, 2007). Ensuring the income of women is an essential precondition for the elimination of poverty and the upholding of human rights (DFID, 2000). Livestock rearing is an important income generating activities (IGAs) that was initiated by different government, non-government organizations (NGO) for the rural women. It is quite pertinent to know the extent of attitude towards livestock rearing. Attitude may be thought of as a person's perspective toward a specific target and way of predisposition to act, perceive, think and feel in relation to something. It is expressed as one's views regarding an object

as positive or negative, favorable or unfavorable, like or dislike etc. with varying degrees. Findings of the study are therefore, expected to be conducive to the researches, policymakers who are concerned with livestock rearing. Keeping the above facts in view, the investigators undertook this study to (i) to assess the extent of attitude of rural women towards livestock rearing (ii) to describe the selected characteristics of rural women (iii) to explore the contribution of the selected characteristics of rural women to their attitude towards livestock rearing, and (iv) to find out the problems faced by the rural women in livestock rearing.

## **Methodology**

### **Location, Population and Sample**

The study was conducted in the sadar upazila of Magura district. The women, who were involved with livestock rearing at Dariapur, Sreerampur, Partharghata villages of Hazipur union and Rawtara, Khalimpur, Nondolalpur villages of Hazrapur union were the target population of the study. Accordingly, the population of the study constituted with 1,745 rural women of the study area. A total number of 118 women, i.e., 10 percent of the population were selected by using the random sampling method as the sample of the study.

### **Variables of the Study**

Attitude of rural women towards livestock rearing was the dependent variable or the major focus variable of the study. Attitude towards livestock rearing of a respondent implies to her beliefs, outlook, perception and action tendencies. To determine this criterion, 14 statements (7 positive and 7 negative) were randomly presented before the interviewees. A five-point scale was used to measure the attitude of the beneficiaries. A respondent was asked to indicate her opinion on a statement against the possible answers of "strongly agree", "agree", "no opinion", "disagree" and "strongly disagree", while the scores were assigned to these options as 4, 3, 2, 1 and 0 respectively. This scoring was applicable for the positive statements and in case of a negative statement it was reverse. All the

scores for positive and negative statements were summed up and the final score was determined. Therefore, the possible attitude scale score could range from 0 to 42.

The selected characteristics of rural women were the independent variables of the study and they included age, level of education, annual family income, contact with service providers, livestock rearing experience, usages of mass media, training exposure, organizational participation, livestock management practices, financial facilities, marketing amenities and knowledge on livestock rearing. Standard scoring methods were used for their measurement as indicated in the Table 1.

Livestock rearing problem of a rural woman was measured by asking her twelve questions related to different issues of livestock rearing. A four-point rated scale was used. A respondent was asked to indicate her problem on a selected aspect in five options, namely "very high problem", "high problem", "medium problem", "low problem" and "not at all problem", while scores were assigned to these options as 4, 3, 2, 1 and 0, respectively. Thus, problems in livestock rearing score of a respondent could range from 0 to 48, where 0 indicated no problem and 48 indicated very high problem as faced by the rural women in livestock rearing.

In order to comparison among the problem items, a Problem Faced Index (PFI) was computed using the following formula:

$$PFI = PVH \times 4 + PH \times 3 + PM \times 2 + PL \times 1 + PNA \times 0$$

Where,

PVH = No. of respondent who faced very high extent of problem

PH = No. of respondent who faced high extent of problem

PM = No. of respondent who faced medium extent of problem

PL = No. of respondent who faced low extent of problem

PNA = No. of respondent who faced not at all of problem

Problem Faced Index (PFI) for a problem could range from 0 to 472, where '0' indicating lowest extent of problem and '472' indicating highest extent of problem confrontation.

### Data Collection and Analysis

Interview method was used to collect data from the respondents. Data were collected using a pre-tested interview schedule from January 20 to February 20, 2017. The collected data were managed through using SPSS statistical package. Various statistical measures such as frequency counts, percentage distribution, average, and standard deviation were used in describing data. In order to estimate the contribution of the selected characteristics of rural women to their attitude towards livestock rearing, multiple regression analysis was used. The null hypothesis for this study was "there is no contribution of the selected characteristics of the rural women on their extent of attitude towards livestock rearing".

## Results and Discussion

### Characteristics of the Rural Women

Selected characteristics of the respondents of the study area are presented in Table 1. The data revealed that the young-aged rural women comprised the highest proportion (63.6%), the highest proportion (56.8%) possesses primary education and medium annual income constituted the highest proportion (67.8%). These groups along with the closed groups of the rural women are of huge important in making livestock rearing a household based entrepreneurship in rural Bangladesh. The highest proportion (61.0%) of the rural women had medium level contact with service providers and the majority (71.2%) of the livestock rearing women fell in medium livestock rearing experience category. Most of the rural women (64.4%) had medium usage of mass media. The highest proportion (66.1%) had low training exposure while the highest proportion (57.6%) of the respondents had medium organizational participation. These results indicate that rural women in the study area should be capable of receiving important information on livestock rearing and executing livestock rearing programs if properly incorporated by the concerned agencies. The highest proportion (49.2%) of the women had medium livestock management practices. Two-third (60.2%) of the women had medium financial facilities category and the highest

proportion (82.2%) of the women had medium marketing amenities. Lastly, the majority (76.3%) of the rural women had medium livestock rearing knowledge. All these findings are very important for the policymakers formulating livestock programs in the rural areas that must be properly gender inclusive ones.

### Rural Women's Attitude towards Livestock Rearing

Attitude towards livestock rearing of the rural women ranged from 4 to 16. The average and standard deviation were 10.28 and 2.82 respectively shown in the following Table 2. On the basis of attitude towards livestock rearing, the respondents were categorized into three classes (Mean  $\pm$  Standard Deviation), namely unfavorable, moderately favorable and highly favorable attitude.

Data presented in the table 2 shows that most of the rural women (66.1 percent) had a moderately favorable attitude towards livestock rearing while 13.6 and 20.3 percent of them had highly favorable and unfavorable attitude respectively. The attitude of the respondents expressed their perception about livestock rearing. It helped the researcher to judge or measure the acceptance/rejection of livestock rearing in the rural area. It is also important to understand why around one-fifth of the rural women had

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unfavorable attitude towards livestock rearing As many women cannot allocate times due to livestock rearing nowadays needs intensive involvement in busy household chores. attention, especially for medium sized farms,

Table 1: Salient features of the selected characteristics of the respondent rural women

Characteristics and measuring unit	Categories and score range	Number (n=118)	Percentage	Mean	Standard deviation
Age (years)	Young (up to 35)	75	63.6	32.15	8.04
	Middle aged ( 36-50)	36	30.5		
	Old (> 50)	7	5.9		
Level of education (years of schooling)	Can't read and sign (0)	0	0	4.33	2.51
	Can sign only (0.5)	10	8.5		
	Primary education(1-5)	67	56.8		
	Secondary education (6-10)	41	34.7		
	Above secondary (> 10)	0	0		
Annual family income ('000 Tk.)	Low income ( $\leq$ 79)	21	17.8	109.31	29.91
	Medium income( 80-140)	80	67.8		
	High income (> 140)	17	14.4		
Contact with service providers (scale score)	Low contact( $\leq$ 8 )	27	22.9	10.63	2.59
	Medium contact ( 9-13 )	72	61.0		
	High contact (> 13 )	19	16.1		
Livestock rearing experience (years)	Low experience ( $\leq$ 4 )	21	17.8	9.38	5.26
	Medium experience ( 5- 15 )	84	71.2		
	High experience (> 15 )	13	11.0		
Usages of mass media (scale score)	Low usages ( $\leq$ 9 )	26	22.0	11.80	2.48
	Medium usages ( 10-14 )	76	64.4		
	High usages (> 14 )	16	13.6		
Training exposure (scale score)	No training ( 0 )	28	23.7	4.11	2.74
	Low training ( $\leq$ 2 )	78	66.1		
	Medium training ( 3-7 )	12	10.2		
	High training (> 7 )	26	22.2		
Organizational participation (scale score)	Low participation ( $\leq$ 3 )	36	30.5	4.59	1.55
	Medium participation ( 4-6)	68	57.6		
	High participation (> 6 )	14	11.9		
Livestock management practices (scale score)	Low practices ( $\leq$ 11 )	40	33.9	12.48	1.79
	Medium practices ( 12-14 )	58	49.2		
	High practices (> 14 )	20	16.9		
Financial facilities (scale score)	Low facilities ( $\leq$ 9 )	42	35.6	11.92	2.16
	Medium facilities (10-14)	71	60.2		
	High facilities (> 14 )	5	4.2		
Marketing amenities (scale score)	Low amenities ( $\leq$ 1)	16	13.6	2.35	0.76
	Medium amenities (2-3)	97	82.2		
	High amenities (> 3)	5	4.2		
Knowledge on livestock rearing (scale score)	Low knowledge ( $\leq$ 13)	13	11.0	17.27	3.34
	Medium knowledge (14-21)	90	76.3		
	High knowledge (> 21)	15	12.7		

Table 2: Distribution of the rural women according to their attitude towards livestock rearing

Categories of the respondent along with score range	Respondents (n= 118)		Mean	Standard deviation
	Number	Percent		
Unfavorable attitude ( $\leq 7$ )	24	20.3	10.28	2.82
Moderately favorable attitude (8-13)	78	66.1		
Highly favorable attitude ( $> 13$ )	16	13.6		

### The Regression Analysis

In order to estimate the contribution of the independent variables on attitude of rural women towards livestock rearing, multiple regression analysis was used. The result shows that there is a significant contribution of rural women's level of education, livestock rearing experience, usages of mass media, training exposure,

livestock management practices, financial facilities, and knowledge on livestock rearing to the attitude towards livestock rearing. Of these, level of education, livestock rearing experience, training exposure, and knowledge on livestock rearing were the most important contributing factors (significant at the 1% level of significance).

Table 3: Multiple regression coefficients of contributing factors related to the rural women attitude towards livestock rearing

Dependent Variable	Independent Variable	B	P	R <sup>2</sup>	Adj. R <sup>2</sup>	F	P
Attitude of rural women towards livestock rearing	Age	-0.09	0.216	0.631	0.603	12.349	0.001**
	Level of education	0.016	0.006**				
	Annual family income	0.006	0.498				
	Livestock rearing experience	0.118	0.008**				
	Contact with service providers	0.125	0.423				
	Usages of mass media	0.225	0.024*				
	Training exposure	0.020	0.003**				
	Organizational participation	0.387	0.115				
	Livestock management practices	0.272	0.049*				
	Financial facilities	0.394	0.016*				
	Marketing amenities	0.074	0.810				
	Knowledge on livestock rearing	0.164	0.000**				

\*\* Significant at  $p < 0.01$ ; \* Significant at  $p < 0.05$

Level of education of the rural women showed the most important contributing factor to form attitude towards livestock rearing. This means that high literacy and educational level among the rural women might have influenced high attitude towards livestock rearing. Zahan (2008) reported that education had significant relationship with attitude towards livestock rearing. Sarker (2002) found that education had positive correlation with the World Vision

farmer's attitude. This finding was also confirmed with earlier findings of Singh and Kunzroo (1985).

Knowledge on livestock rearing of the rural women had a significant contribution to the attitude towards livestock rearing. Tarannum (2013) found a positive significant relationship between knowledge and attitude in her study. Bhuiyan (2008) and Zahan (2008) found a positive significant relationship between

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knowledge and attitude in their study. Similar kind of result was obtained by Afrad (2002), Siddique (2002), Sarker (2002), Mannan (2001), Paul (2000), and Nuruzzaman (2001) in their respective studies.

High livestock rearing experience encourage the rural women to rare more livestock. Usages of mass media had a significant contribution to the attitude towards livestock rearing. Use of mass media increases the outlook of the rural women which lead them to form favorable attitude towards livestock rearing. Usages of mass media, livestock management practices and financial facilities (significant at the 5% level of significance) while coefficients of other variables(age, annual family income, contact with service provider, organizational

participation and marketing amenities) don't have any contribution on attitude of rural women towards livestock rearing.

### **Problems Faced by Rural Women in Livestock Rearing**

Problems faced by rural women in livestock rearing scores ranged from 11 to 33. The average score and standard deviation were 21.5 and 5.45, respectively. Based on the problems on livestock rearing scores, the rural women were classified into three categories (Mean  $\pm$  Standard Deviation) namely low problem, medium problem and high problem. To ascertain the best problem confrontation strategies Problem Faced Index (PFI) was computed.

Table 4: Distribution of the rural women according to their problems on livestock rearing

Categories of the respondents with score range	Respondents (n =118)		Mean	Standard deviation
	Number	Percent		
Low problem ( $\leq 15$ )	22	18.6	21.5	5.45
Medium problem (16-27)	84	71.2		
High problem ( $> 27$ )	12	10.2		

Table 4 reveals that majority (71.2 percent) of the rural women had medium problem confrontation on livestock rearing, followed by 18.6 percent and 10.2 percent respectively had low and high problems confrontation. The average value is also considerably high. These findings indicate that women faced ranges of problems to some significantly considerable extent in livestock rearing. These problems should be appropriately addressed by the concerned government and non-government authorities and actors. In fact, the Department of Livestock Services (DLS), the mainstream and largest public sector actor for the development of livestock sector needs to look into the problem areas carefully.

### **Rank Order of the Problems faced by the Rural Women**

As per Problem Face Index (PFI), 'lack of grazing land' positioned the 1<sup>st</sup>, 'shortage of

medicines' in 2<sup>nd</sup>, and 'lack of proper training' in 3<sup>rd</sup> in the rank order. The following two problems ('lack of rearing knowledge' and 'improper management practices') are also having high PFI scores. The first one is a situational problem and seems the greatest problem in the Bangladesh context. However, the 2<sup>nd</sup> to 5<sup>th</sup> problems are mainly related to management issues and the concerned authority has to do something serious to offset these problems. Lack of medicine for the livestock farmers is a common phenomenon as the Upazila Livestock Centers are not capable to supply medicines to the farmers. Farmers also largely dependent on quacks and thereby deprived of proper veterinary services. As a result they do not get those from the legitimate entity and registered veterinarians. On the other hand, proper training and extension events are the key to solve the problems like lack of training and lack of management knowledge.

Table 5. Rank order of problem faced by rural women in livestock rearing

Sl. No.	Nature of problems	PCI score	Rank
1	Lack of grazing land	421	1 <sup>st</sup>
2	Shortage of medicines	406	2 <sup>nd</sup>
3	Lack of proper training	390	3 <sup>rd</sup>
4	Lack of livestock rearing knowledge	365	4 <sup>th</sup>
5	Improper management practices	348	5 <sup>th</sup>
6	Lack of credit facilities	331	6 <sup>th</sup>
7	Lack of qualified veterinary doctors	324	7 <sup>th</sup>
8	Anthelmintic and disease	316	8 <sup>th</sup>
9	Lack of HYV breeds	301	9 <sup>th</sup>
10	High price of quality feed	295	10 <sup>th</sup>
11	Marketing problem	278	11 <sup>th</sup>
12	Environmental hazards	272	12 <sup>th</sup>

### Conclusions

This study revealed that overwhelming majority of the rural women (79.65%) had moderately to highly favorable attitude while only 20.35 percent of them had low favorable attitude towards livestock rearing. Therefore, it can be concluded that women of the study area had positive perception on livestock rearing. Findings of this study also helps to conclude that there is a significant contribution of rural women's level of education, livestock rearing experience, usages of mass media, training exposure, livestock management practices, financial facilities, and knowledge on livestock rearing to the attitude towards livestock rearing and had 63.1 percent contribution. It also revealed a rank order of 12

problems on livestock rearing where lack of grazing land positioned the rank 1st, Shortage of medicines ranked 2<sup>nd</sup>, Lack of proper training ranked 3<sup>rd</sup> and subsequently environmental hazards ranked last position. Therefore, effective step should be taken by the Department of Livestock Services (DLS), Non-Government Organizations (NGOs) and other concerned authorities to improve the personal characteristics of the rural women and also take necessary actions to solve the identified problems of livestock rearing. Steps may be massive demonstration programs, training programs, field trips, ensure quality inputs etc.

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