

CONTENTS

Sl. No.	Name of The Contents	Page No.
01	LIST OF TABLES	IV
02	LIST OF FIGURES	IV
03	ABSTRACT	V
04	INTRODUCTION	1-3
05	REVIEW OF LITERATURE	4-6
06	METHODOLOGY	7
07	RESULTS & DISCUSSION	8-11
08	CONCLUSION	12
09	RECOMMENDATIONS	13-14
10	REFERENCES	15-16
11	ACKNOWLEDGEMENT	17
12	<i>APPENDICES (A-C)</i>	18-23
13	ASSUMPTIONS	24
14	BIOGRAPHY	25

List of Tables

Sl. No.	Title	Page No.
01	Salient features of selected characteristics of respondents	08
02	Empowerment of Women in Goat Rearing	09
03	Rank order of the problems faced by the rural women during goat rearing	10-11

List of Figures

Sl. No.	Title	Page No.
01	Empowerment Category of Women by Goat Rearing in the study area	09
02	Assessment of different problems faced by rural women involved in goat rearing	11

ABSTRACT

The main purpose of the study was to assess the empowerment of rural women by goat rearing. Chambal union under Banshkhali Upazila of Chattogram district was the locale of the study. All the rural goat rearing family women of Chambal union constituted the population of the study. Data were collected from a sample of 100 women heads selected randomly from October 2019 to November 2019. The extent of empowerment of rural women in thirteen items of goat rearing activities was measured through a 0-3-point rating scale. Seventeen selected characteristics of women were independent variables. Findings revealed that the empowerment of women by goat rearing ranged from 7 to 19 against expected value 0 to 20 with a mean of 14.87 and a standard deviation of 3.47. The data also showed that the largest portion (63 percent) of the respondents fell into medium empowerment category while 28 percent and 9 percent fell into low and high empowerment categories respectively. Correlation analyses indicate that knowledge about goat rearing; extension media contacts were found to have a positive significant relationship with empowerment by goat rearing. On the other hand, education, farm size, annual income had a negative significant correlation with empowerment by goat rearing, while respondents' age, marital status, family size, credit receipt and grazing land availability had no significant relation with empowerment by goat rearing. Regarding problem confrontation in goat rearing, data indicated that among the 10 major problems, 'lack of proper training about goat rearing' ranked first with a 251 problem index (PI). Lack of available grazing land came next in rank (Rank 2, PI 242). The high mortality rate of kids was the next problem (rank 3, PI 216).

Keywords: goat rearing; women empowerment; education

INTRODUCTION

Bangladesh is a densely populated country having about 165 million people in its 147500 sq. km of area. About 49.4 percent of the population of the country is female (BBS, 2019). Women are the foremost important segment of human resources who need attention for their development. There's an in-depth relationship between the status of women the socio-economic development of a country.

The rate of literacy for women remains lower in Bangladesh. It's only 70.09 percent for ladies compared to 75.7 percent for men. Bangladesh may be a poor country within the world in terms of per capita income which is 1909 US dollars (BBS, 2019). To ensure a balanced socio-economic development of the country, change in the status of a women may be a precondition. This might be achieved only if there's increased participation of girls in developmental activities. Women play the foremost dominant part in rearing goat. The role of women in goat farming is extremely significant in rural families and goat is that foremost vital means through which rural women can contribute meaningfully to the cash needs for themselves and their relations. Women who occupy the home, goat rearing is the most useful way of their earning. However, livestock contributes about 3.1 percent to the GDP (Gross Domestic Product) of Bangladesh and in total exchange earning accounts for about 6.2 percent (Alam, 1995) during which share of the goat is vital. Goat production varies in several parts of the earth. Since the assembly cost of the goat is lower than the cattle and buffalo. Goat farming requires a little initial investment and an occasional risk of loss because of individual death. On the other hand, this species can easily be managed by women and kids. The Black Bengal goat is developed during this country through survival with none intervention by man. Participation of rural women in goat rearing has some advantages. They are,

1. To make employment opportunities through goat rearing
2. To Motivate income-generating activities
3. To make a replacement awakening among the neglected section of society.

From the traditional period, goat rearing has a crucial role in the production of meat, milk and hide. There is about 677 million goats within the world. Among them 64 percent in Asia, 30 percent in Africa, 3.3 percent in North and South America, 2.3 percent in Europe

and 0.4 percent in Oceania. In Asia, 71 percent goat reared by the tiny farmers. Just in case of Bangladesh out of two crore goats, 52 percent are reared by the landless marginal farmer (Chowdhury *et al.*, 2002).

In Bangladesh, the typical number of goats per farm is 4, which is adequate in the south-east Asian countries, like Indonesia, Malaysia and Thailand. Forty-one percent of farm income comes from goats in some parts of Bangladesh. Besides, leather is the simplest export goods in Bangladesh that earns 25 crore Taka once a year (Chowdhury *et al.*, 2002).

In Bangladesh, rural women are dominated by men. Things now seem to be changing considerably because of the introduction of the latest technologies in agriculture, like goat rearing, poultry raising, homestead farming etc. Women and their access to goat rearing could also be a dimension within the event process. This remains as a virtually unexplored area of investigation. After remaining invisible for an extended time, recently it has been surfaced within the discussion on development strategies. Now each day, the agricultural women are being approached by different Government and Non-Government agencies. On the opposite hand, there's a requirement to seek out working areas for intensifying their participation in agricultural production. To combat overall food shortage, malnutrition and also to develop the socio-economic condition of the agricultural women involvement in the agricultural field becomes mandatory.

Agricultural extension, therefore, must develop sound plans and procedures for improving knowledge of the agricultural women in various aspects of goat rearing. Information on farmer's needs, their problems, prospects etc. are essential for an efficient plan of labor. But little or no research has been done about the participation of rural women in goat rearing in Bangladesh. Considering the above facts, the investigator took an interest to undertake a study on the participation of rural women in goat rearing. Additionally, the definition of terminology utilized in this study, scopes, limitations, assumptions of this study and questionnaire prepared for the interview are being attached herewith as Appendix-A, Appendix- B and Appendix- C, respectively.

Specific Objectives: The subsequent specific objectives are drawn so as to offer a correct direction to the study:

I. To explain the chosen characteristics of rural women.

The selected characteristics are:

Age

Education

Farm size

Annual income

Marital status

Family size

Credit received

Knowledge about goat rearing

Grazing land availability

Extension of media contact

II. To assess the extent of participation of rural women in goat rearing

III. To explore the connection between selected characteristics of rural women and

IV. To assess problems faced by the agricultural women in goat rearing.

REVIEW OF LITERATURE

The present study is concerned with the participation of rural women in goat rearing in a selected area. This segment deals with the review of past studies and findings related to the present study. The researcher made an elaborate search of available literature for the above purpose. Very few research works have been done so far on the participation of rural women in goat rearing in Bangladesh. The researcher, therefore, made an exhaustive effort to review the previous research works directly or indirectly related to the present study by different researchers at home and abroad. Therefore, the findings of such studies related to the extent of participation in goat rearing and other potential studies have been reviewed in this segment.

A study by Christy *et al.*, (2002), analyses the association between the socio-economic characteristics of farm women and the extent of their participation in livestock farming. Using multistage random sampling, 30 women respondents; each from the categories of landless, marginal, small and large scale farmers are selected from 4 villages of Villupuram district in Tamil Nadu, India in the year 1999-2000. The linear regression model is fitted to assess the factors influencing the extent of female participation in livestock farming. The result of the study indicates that most of the tasks related to livestock keeping were performed by farm women. Farm women had developed close associations with livestock farming in the state.

Alam *et al.*, (2001), studied Women's participation in Raising Livestock in Some Selected Areas of Bangladesh. The findings indicate that the average number of goats per farm was 1.94, 0.93, 1.19 and 1.22 for large, medium, small and landless farms, respectively and its correlation coefficient was found positive (0.059).

Women's involvement in various behavioral processes relating to household and crop-livestock practices in West Bengal, India was examined in a study conducted by Anita *et al.*, (2001). The study revealed that age, education, family size, family income, landholding, average location yield, herd size, social participation, mass media exposure and faith had a significant impact on women's involvement in various behavioral aspects

like decision making, planning, perceptual process and participatory process concerning household and crop-livestock farming practices.

Obinne *et al.*, (2000) studied, characteristics of the activities of women at Makurdi Local Government Area of Benue State, in Nigeria, in traditional livestock management. A sample of 100 women was randomly selected from ten villages. The major findings were that the illiteracy rate was high and the women raised mostly small animals for meat to win their husband's favor. One recommendation was women should be actively involved in all levels of program planning and execution.

Naher (2000) reported that, time utilization of rural women in agricultural activities was highest in poultry raising (0.82 hours/person/day) followed by cattle rearing (0.75 hours/person/day) and goat rearing (0.62 hours/person/day).

In a study undertaken by Seema *et al.*, (1998), to assess the participation of 100 tribal and non-tribal women of Hazaribagh district of Bihar in farm and home activities. The findings indicate that for tribal and non-tribal women household related tasks took precedent over agricultural tasks, livestock-related tasks and forest-based tasks. The involvement of tribal and non-tribal women in agricultural tasks was greater than that of their involvement in forests based and livestock-related tasks.

Shivalingaiah *et al.*, (1996), stated that the participation of female youth was more in dairy activities than that of the male youth because animal-related tasks were predominantly women-centered and were mostly performed by them.

Islam *et al.* (1996), found that age and family size of participating women had no significant relationship with their extent of participation but education, mass media exposure, contact with extension agent, women respondent attitude and their husbands' attitude were found to be significantly associated with women's extent of participation in agricultural activities.

Akhter *et al.*, (1995), identified the status of rural women in Bangladesh and their role in agriculture, income-generating activities and decision-making process. They observed that the women working day varied between nine and thirteen hours. Most of the working hours were employed in economic and expanded economic activities. However, the productivity

of economic activities such as livestock raising and kitchen gardening is very low mainly due to lack of technical knowledge. They concluded that if women from small, marginal and landless farm households were trained with improved techniques they could raise their income levels.

Islam *et al.*, (1992) mentioned that cattle are tethered in the homestead areas and women play a significant role in feeding, rearing and management of livestock during such period together with their male counterparts. Women pegged their cattle, goat, sheep, etc. in the homestead areas early in the morning and they from time to time, shelter them in the safer place from the source of sun or rain and tied them in the shed at night.

Ahmed (1991), identified some problems related to the production aspect. Lack of feed resources, low genetic potential, parasitic disease and lack of credit for livestock production.

Akhter (1989), stated that women are involved in homestead agricultural production activities such as vegetables, fruits, timber, small animals (goat, sheep) and poultry birds to supply food and to increase family income.

Karim *et al.*, (1988), conducted a study on “Women’s role in milch cow rearing”. They reported that, there was a negative relationship between women’s literacy level, household land ownership and their participation in milch cow rearing compared to women of medium and large farm households.

Sardana *et al.*, (1988), observed that Indian farm women are playing a dominant role in about eight agricultural activities. In descending order these are tending dairy cattle, collection of fodder from the field, selling livestock products, storage of farm produce, weeding operations, management of cattle, harvesting the crops and making farmyard manure. Significantly, livestock-related activities were more pronounced almost 95 percent.

METHODOLOGY

The main purpose of this study was to assess the participation of rural women in goat rearing and their empowerment through this. Chambal union under Banshkhali Upazila of Chattogram district was the locale of the study. All the rural goat rearing farm family women heads of Chambal union constituted the population of the study. Data were collected from a sample of 100 women heads, selected randomly from October 2019 to November 2019 through a pre-tested interview schedule. Seventeen selected characteristics of women were independent variables which are name, age, education, farm size, annual income, marital status, family size, credit received, training about goat rearing, sanitation; extension media contact etc. were measured through following standard procedure. However, their empowerment in goat rearing was selected as the dependent variable of this study. The researcher made the list of 13 conditions that they could change after goat rearing. In measuring achievements in 13 conditions a 0-3-point rating scale was developed with 2-4 kinds of responses. The scores assigned for each kind of response were 3, 2, 1 and 0 respectively to measure the empowerment of rural women in goat rearing. Each respondent was asked to indicate her empowerment in 13 conditions following a 0-3-point rating scale. After adding all the responses together, the empowerment score of a respondent was ascertained. The score could range from 0-20, 0 indicating no empowerment and 20 indicating very high empowerment. Obtained data was stored in Microsoft Excel-2010. Descriptive statistical analysis was done to measure the mean and standard deviation of different parameters. For a better understanding of comparative participation of rural women on 13 activities of goat rearing, an Empowerment Index (EI) was computed using the following formula:

$$EI = (E_{ne} \times 0) + (E_{se} \times 1) + (E_{pe} \times 2) + (E_{fe} \times 3)$$

E_{ne} = Percentage of rural women with no empowerment

E_{se} = Percentage of rural women with slight empowerment

E_{pe} = Percentage of rural women with partial empowerment

E_{fe} = Percentage of rural women with full empowerment

RESULTS AND DISCUSSION

Data placed in table 1 reveal that majority of respondent (62 percent) fell into the middle age category, where 21 percent and 17 percent fell into the young and old age category, respectively. In the education level, the majority (56 percent) fell into primary categories, where 31 percent and 12 percent fell into illiterate and secondary categories, respectively. Interestingly, only 1 percent fell into higher secondary and above categories (Table 1). More than half proportion (55 percent) fell into the low category of annual income, where 37 percent and 8 percent medium and high categories of annual income, respectively (Table 1). Regarding marital status, the majority (72 percent) of the respondent fell into the married category, where only 6 percent fell into the unmarried category (Table 1). Interestingly, both widow and divorce categories comprising the same proportion (11 percent). Regarding family size, the majority (51 percent) fell into the medium category, where 20 percent and 19 percent fell into small and high categories, respectively. Regarding training about goat rearing, the majority (71 percent) fell into no training received, where 29 fell into the received training category, respectively (Table 1).

Table 1 Salient features of selected characteristics of respondents (N= 100)

Characteristics	Measuring units	Range		Category	Respondents (N-100)	Mean	Standard deviation
		Expected	Observed		Number & Percent		
Age	Year	∴	18-65	Young(upto-30 years)	21	38.57	5.26
				Middle (>30-45 years)	62		
				Old(>45 years)	17		
Education	Years of schooling	∴	0-12	Illiterate (0)	31	3.82	1.24
				Primary(1-5)	56		
				Secondary (6-10)	12		
				Higher secondary and above	01		
Annual income	Thousand Taka	∴	5-80	Low (upto-25)	55	48.92	7.83
				Medium (26-50)	37		
				High (>50)	08		
Marital Status	Number	∴	-----	Unmarried	06	----	----
				Married	72		
				Widow	11		
				Divorce	11		
Family Size	Numbers	∴	1-10	Small (up to 4)	20	6.18	1.65
				Medium (5-7)	61		
				High (8- and above)	19		
Training about goat rearing		∴	∴	Yes	29	---	---
				No	71		

Empowerment of Women by Goat Rearing

Data presented in table 2 and figure 1 indicated that the empowerment of women by goat rearing ranged from 7 to 19 against expected value 0 to 20 with a mean of 14.87 and a standard deviation of 3.47. However, based on their empowerment, the rural women were classified into three categories as low, medium and high empowered categories and their distribution is shown in table 2.

Data presented in table 2 and figure 1 show that the largest portion (63 percent) of the respondents fell into the medium empowerment category, while 28 percent and 9 percent fell into low and high empowerment categories, respectively. An overwhelming majority of the women were into low to medium empowerment category.

Table 2 Empowerment of Women by Goat Rearing

Characteristics	Measuring unit	Range		Category	Respondents (N=100)	Mean	Standard deviation
		Expected	Observed		Number & Percent		
Empowerment of Women in Goat rearing	Score	0-20	7-19	Low Empowerment (up to-10)	28	14.87	3.47
				Medium Empowerment (>10 to 16)	63		
				High Empowerment(>16)	09		

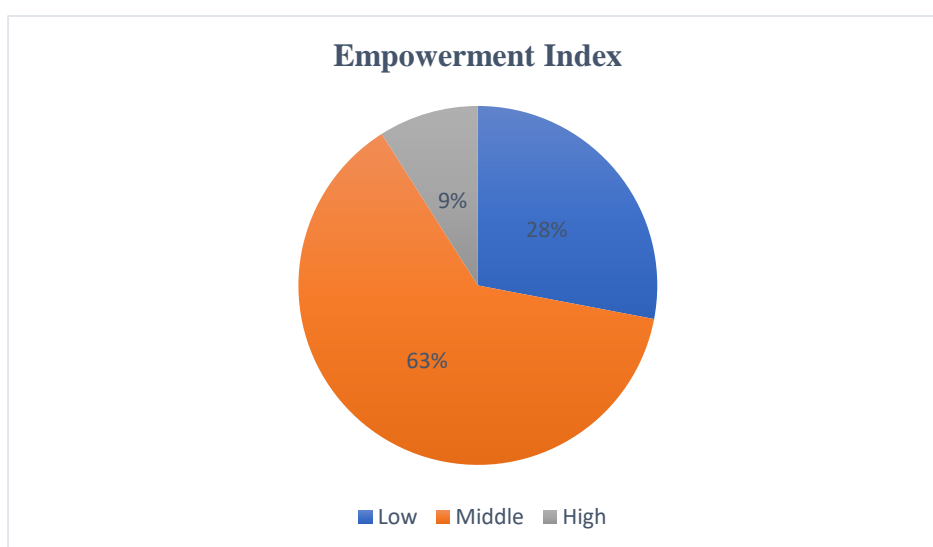


Fig. 1 Empowerment Category of Women by Goat Rearing in the study area

Generally, we face several problems or constraints in performing any production activity. In the case of livestock activities, the extent and types of problems are diversified. However, the rural women of the study area mentioned 10 problems which are given in table 3 with rank in descending order of importance.

Data in table 3 and figure 2 indicated that among the 10 major problems, ‘lack of proper training about goat rearing’ ranked first with a 251 problem index (PI). Lack of available grazing land came next in rank (Rank 2, PI 242). The high mortality rate of kids was the next problem (rank 3, PI 216). The problem regarding goat shed came next in order (rank 4, PI 214). Apart from these, ‘Lack of adequate capital’, ‘lack of good breed of goat’, ‘high price of veterinary medicine’, ‘lack of a necessary vaccine for controlling disease of goat’, ‘intrusion to others land by goat’ and ‘lack of knowledge about artificial insemination for improvement of goat’ with problem index 207, 195, 164, 156, 132 and 120 ranked 5th, 6th, 7th, 8th, 9th and 10th, respectively.

Table 3 Rank order of the problems faced by the rural women in goat rearing

Problems	Number of respondents against each of the three-problem level			Problem Index (PI)	Rank Order
	High (3)	Moderate (2)	Low (1)		
Lack of proper training about goat rearing	70	11	19	251	1
Lack of available grazing land	60	22	18	242	2
High mortality rate of kids	53	20	17	216	3
Problem regarding goat shed	32	50	18	214	4
Lack of adequate capital	30	47	23	207	5
Lack of good breed of goat	25	45	30	195	6

High price of veterinary medicine	20	24	56	164	7
Lack of necessary vaccine for controlling disease of goat	16	24	60	156	8
Intrusion to others land by goat	10	12	78	132	9
Lack of knowledge about artificial insemination for improvement of goat	5	10	85	120	10

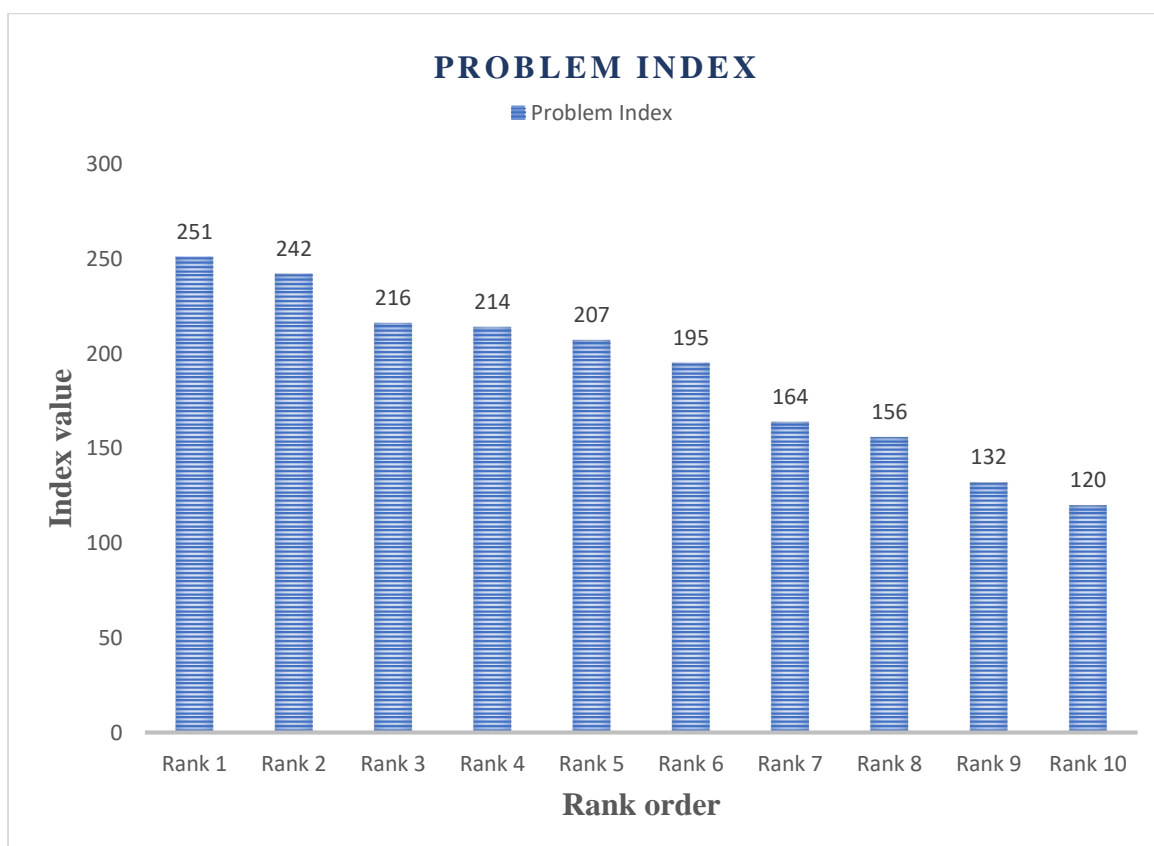


Figure 2: Assessment of different problems faced by rural women involved in goat rearing

CONCLUSION

Based on the findings of the study, the logical interpretation of the meaning and other relevant facts enables the author to draw the following conclusion:

In the present study, the overall empowerment of rural women by backyard goat rearing was low to medium. Women in our country belong to a conservative society who face different sorts of the social obstacle to rear goat which rightly been reflected in this study. So, there is a need for strengthening extension by GOs and NGOs to ensure a continuous flow of information and techniques to the rural women for enhancing their skills and knowledge in the respective areas. Rural women in the study area mentioned 10 problems. These problems created disturbances in implementing the goat rearing activities. Therefore, it may be concluded that, the goat rearing activities of the rural women will be continuously disturbed if the above problems are not handled appropriately. Thus, Women Empowerment will be disturbed too. Most of the rural women were young to middle-aged, while the age of the rural women had no significant relationship with their participation in goat rearing. But, as a larger proportion of the rural women are middle-aged, hence it may be necessary to give some importance to these categories.

RECOMMENDATIONS

Although women empowerment occurs extensively in rearing goat, they remain invisible in official statistics. Consequently, very little attention has been given to women's contribution to increase agricultural production. To improve the conditions of women through goat rearing the following suggestions are made based on farmer's views and other findings of the study.

1. Participation in rural women in different goat rearing activities was at a varying extent, while some items relatively better participated and some items were relatively less participated. It is, therefore, recommended that special care should be taken by various GOs, NGOs and other concerns so that participation of the rural women in different goat rearing activities could be enhanced.
2. Education of the rural women showed a significant negative relationship with their participation in goat rearing activities. It is, therefore, recommended that steps should be taken by the concerned authorities to accelerate goat rearing activities by the rural women who have a relatively lower level of literacy.
3. Small and marginal farmers had increased participation in goat rearing activities. Because of the above facts it may be recommended that extension and other development agencies need to take an attempt for small and medium scale farmers, so that they can be involved more in goat rearing activities.
4. Extension media contact is very important for receiving information from a different source. But the maximum respondent in the study area had low and medium extension contact. Therefore, it is recommended that steps should be taken to encourage rural women to increase participation in media exposure.
5. As cited by rural women, there were 10 problems creating disturbances in goat rearing activities. It is, therefore, recommended that Department of Livestock Service and extension agencies should give attention to solve the problems as far as possible.

Recommendations for further study:

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

2. Relationships of thirteen characteristics of the rural women with their empowerment by goat rearing have been investigated in this study. Further research should be conducted to explore the relationship of other characteristics of rural women with their empowerment by goat rearing
3. In the present study, only empowerment by goat rearing was studied but the production potential of goat rearing activities was not considered. There might be a relationship between the productivity of particular activity with the extent of participation that should be considered in future studies
4. There are so many problems in empowerment by goat rearing among rural women. More research should be conducted to find out the problems and suggested solutions to the problems from different stakeholders.

REFERENCES

1. AHMED, N. (1991). Problems and prospects of Livestock in Bangladesh. A paper presented in the annual Meeting-cum-workshop at Livestock Research Institute, Savar, Page- 8-14.
2. AKHTER, A. (1989). Involvement of Women in Homestead Agriculture in a selected village of Tangail District. M.Sc. (Ag.Ext.Ed.) Thesis, Department of Agricultural Extension and Teachers' Training, Bangladesh Agricultural University, Mymensingh.
3. AKHTER, S., BANU, SARKER, JOARDER, SHAHA R. (1995). Women in Farming and Income Earning: Study at Gazipur village. Journal of Rural Development.
4. ALAM, J. (1995). Livestock Resources in Bangladesh: Present Status and Future Potential. Dhaka University Press Limited. ALAM, J., SAYEED MA, RAY S.K. (2001). Women's Participation in Raising Livestock in Some Selected Areas of Bangladesh. Bangladesh Livestock Research Institute. (BLRI), Savar, Dhaka, Page-12-21.
5. ALAM, J., SAYEED MA, RAY S.K. (2001). Women's Participation in Raising Livestock in Some Selected Areas of Bangladesh. Bangladesh Livestock Research Institute. (BLRI), Savar, Dhaka, Page-12-21.
6. ALAM, M., (2001). Performance of Thengamara Mohila Sobuj Shangha Beneficiaries of Three Unions Under Sadar Upazila of Bogra District. M.S. (Ag.Ext.Ed.) Thesis. Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
7. BBS, (2007). Statistical Yearbook of Bangladesh, Bangladesh Bureau of Statistics. Ministry of planning, Government of the people's Republic of Bangladesh, Dhaka, Bangladesh.

8. CHOWDHURY, R.J., THIRUNAVUKKARASU (2002). Socio-economic dimensions of female participation in livestock rearing: a case study in Tamil Nadu. *Indian Journal of Agricultural Economics*, 57 (1): 99-103.
9. CHOWDHURY, S.A., SIL B.K, HOSSAIN (2002). *Goat Production Manual*. Bangladesh Livestock Research Institute. (BLRI), Savar, Dhaka.
10. ISLAM, M.R., ASADUZZAMAN, BEGUM J (1992). Women's Role in Livestock Raising in Bangladesh. *Asian Livestock*, 17 (4): 41-45.
11. ISLAM, M.S., BHUIYA, KARIM (1996). Women participation in Agricultural Income Generating Activities. *Journal of the Asiatic society of Bangladesh Science*, 22 (2):149-153.
12. KARIM, R., BEGUM SA (1988). Women's Role in Milch Cow Rearing: A Study of Two Villages, Bangladesh Academy for Rural Development, Kotbari, Comilla.
13. NAHER, K. (2000). Participation of Rural Women in Homestead Agriculture in a Selected Areas of Gazipur District. M.S. (Ag. Ext, Ed.) Thesis. Dept. Of Agricultural Extension Education. Bangladesh Agricultural University, Mymensingh.
14. OBINNE, C.P.O., UZA, MWACHUKWU (2000). Characterizing the Indigenous knowledge of Rural Women in Livestock Management in Benue State. *Journal of Agriculture Technology and Education*, 5: 1-2, 39-43: 8.
15. SARDANA, P.K. (1988). Role of Women in Agriculture Farm; Women and Dairy Supplement One Another. *Journal of Extension System*, 4 (1): 67-69.
16. SEEMA, D., JHA B.K, NILU, DEY S., SINHA (1998). Participation of Tribal and Non-tribal Women in Farm and Home Activity in Chotanagpur of Bihar State. *Journal of Applied Biology*, 8(2): 69-70.
17. SHIVALINGAIH, Y.N., VURABHADRAIAH (1996). Knowledge Assessment and Participation of Rural Youth in Dairy Management Practices. *Indian Journal of Dairy Science*, 19 (4): 244-251.

ACKNOWLEDGEMENT

The author is ever grateful and indebted to the Almighty Allah without whose grace it would have never been possible to pursue this study in this field of science and to complete this production report writing for the Degree of Doctor of Veterinary Medicine (DVM).

The author would like to express her deep sense of gratitude heartfelt and appreciation to Professor **Dr. Goutam Buddha Das**, Vice-Chancellor of Chattogram Veterinary and Animal Sciences University.

The author would like to express her deep sense of gratitude, heartfelt appreciation and thanks to Professor **Dr. Abdul Ahad**, Dean, FVM, Chattogram Veterinary And Animal Sciences University.

It is deemed as a proud privilege and extra-terrestrial pleasure to express authors ever indebtedness, deepest sense of gratitude, sincere appreciation and profound regards to authors reverend and beloved teacher and Supervisor **Mr. Abdul Rahman**, Assistant Professor, Department of Agricultural Economics and Social Sciences, Chattogram Veterinary And Animal Sciences University for his scholastic guidance, uncompromising principles, sympathetic supervision, valuable advice, constant inspiration, affectionate feeling, radical investigation and constructive criticism in all phases of this study and preparing the manuscript also.

The author highly expresses her gratitude and thanks to **Prof. Dr. A.K.M. Saifuddin**, Director, External Affairs, Chattogram Veterinary And Animal Sciences University, for his constant inspiration, cordial co-operation, valuable suggestion for completion of the report work.

The author is ever indebted to her father, mother, brothers, sisters, uncles, grandmother, grandfather and other relatives for their sacrifices, blessing and encouragement to get her in this position.

The Author
September, 2020

APPENDIX-A

Definition of Important Terms

Age: The age of a respondent women referred to the number of years have elapsed from her birth to the time of the interview.

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

Marital status: Marital status of a woman meant whether she was unmarried, married, widow, or divorced.

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

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

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

Family income: It referred to the total earning of the entire family member from agricultural and other non-agricultural sources (Service, business, day laborer, etc.) during a year. It was expressed in Taka.

Credit received: Credit received of a respondent rural woman referred to the amount of money as credit received by her.

Grazing land: Grazing is only the means of feeding the animals and they are grazed in the fallow lands, river, canal and roadsides.

Extension contact: This term referred to one's becoming accessible to the influence of extension education through different extension teaching methods.

Group contact: It referred to those extension methods in which a change agent communicates messages with the people physically in-group meetings. The group contact methods in this study refer to group meetings, farmer's training, field days, etc.

Individual contact: It referred to those teaching methods through which the extension agent communicates with the people individually in a face-to-face physical situation.

Personal locality: It referred to the interpersonal communication with relatives, neighbors and village leaders in the local area.

APPENDIX-B

Scopes and limitations

The role of women in changing society is very important. The government has also emphasized to involve women in the goat rearing of the country because they are now a definite strength in the nation-building process. The findings of the study would be helpful to planners, administrators and others associated with the development of rural women.

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

- i.** The study was confined to a selected area i.e., five villages of Chambal union under Banskhali Upazila under Chattogram district
- ii.** There were many agricultural activities participated by rural women. Out of them, activities of goat rearing were considered for this piece of research
- iii.** There were many items under goat rearing, but only 13 important items were selected under goat rearing for measuring the extent of empowerment
- iv.** The researcher has to depend on the data furnished by the selected respondents
- v.** There were many rural women in the study area, but data collected from only 100 rural women participated in goat rearing was considered for the study.

APPENDIX-C

Questionnaire for data collection on “Backyard goat farming: A key to rural women empowerment at Chambol union in Banskali”

ID NO.

DATE:

Farmer's information

Name:

Age:

Marital status:

Married/Unmarried

Occupation:

Educational qualification:

Father/Husband's name:

Occupation:

Training status:

Trained

Untrained

Source of finance:

Savings

Loan

Both

Owner of farm:

Government's Aid:

Obtained

Not obtained

Family information

Family type: Nuclear

Extended

No. of Members:

Family Member Sl.	Educational qualification	Occupation	Income/Year
1.			
2.			
3.			
4.			

Financial condition (Before and after farming): Same Changed Huge change

Health condition:

Healthy

Poor health

Sanitary latrine:

Yes

No

Farm information

Type of farm:

No. of buck:

No. of doe:

No. of kid:

Breed of goat:

Type of reproduction:

AI

Natural

Farm management

Housing materials:

Type of feeding: Free range/Semi-intensive/Intensive

Feed requirement/day: Kg

Roughage: Kg

Concentrate: Kg

Grazing land: Own

Lease

Others

Vaccination and medication:

Regularly maintained

Not maintained

Annual Statement

Expenses:

Feed cost/year:

Housing cost:

Instrument cost:

AI and medication cost:

Repaying loan:

Total expenses: **Tk.**

Income:

From meat:

From milk:

From manure:

Net income: **Tk.**

EMPOWERMENT SURVEY

1. What type of changes occur in your status after starting goat farming?
0. Worse 1. Unchanged 2. Better
2. Do you feel self-dependent? Have you got confidence?
0. No 1. Little bit 2. Good enough
3. Do your opinion get importance in family discussions now?
0. No 1. Little bit 2. Good enough
4. In which sector do you spend your earnings?
0. Unnecessary events 1. Education and infrastructure
5. How does your farm play a vital role in your family nutrition?
0. Nothing 1. Little bit 2. Good enough
6. Does anyone interrupt in your earning forcefully?
0. Yes 1. No
7. Have you faced any problem or obstacle by family or society to run goat farming?
0. Yes 1. No
8. Do you encourage other women for goat farming?
0. No 1. Yes
9. Are you a member of any GO or NGO which works for welfare of village women?
0. No 1. Yes
10. Do you think women should be self-dependent?
0. No 1. Yes
11. What is your future plan about goat farming?
0. Will close farming 1. Will continue in this way 2. Will extend
12. (For unmarried women) Do you want to continue goat farming after marriage?
0. No 1. Yes
13. What type of financial changes you found before and after farming?
0. Worse 1. Unchanged 2. Little bit improved
3. Much improved

SURVEY SCORE TABLE

Score per question	No. of questions	Sub total
0		
1		
2		
3		

Total =

(Range: Minimum 0 - Maximum 20)

Obtained empowerment score:

ASSUMPTIONS

The following assumptions were in the mind of the researcher while undertaking this study:

- i. The respondents were able to provide a proper response to the questions included in the instrument
- ii. The responses furnished by the respondents were reliable and valid
- iii. Views and opinions furnished by the respondents included in the sample would be representative of the population
- iv. The respondents selected for the study area would be competent enough to reply to the queries made by the investigator
- v. The environmental conditions of the women were more or less similar throughout the study area.

BIOGRAPHY

I am Farnaz Kader Nova, daughter of Md. Abdul Kader and Mrs. Hamida Khanam. I passed my Secondary School Certificate (SSC) examination from Chattogram Govt. Girls' High School, Chattogram with G.P.A-5.00 and Higher Secondary Certificate (HSC) examination from Bangladesh Women's Association School and College with G.PA-5.00. Now I am an intern veterinarian under the Faculty of Veterinary Medicine at Chattogram Veterinary And Animal Sciences University. I have an immense interest to work in the field of Genetics and breeding.