

## Socio-Environmental Condition of Rural Women in Bangladesh

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**Abstract:** The study aims to understand the socio-economic condition of rural women in Bangladesh. The research is based on both primary and secondary data. Primary data collected from a structured questionnaire survey through interview and observation when some secondary data also collected from different sources. 384 respondents have been interviewed from nine villages of Ishwardi, Pabna; a north-western part of Bangladesh. According to primary survey, 90% of our respondents are literate and 43% households earn less than monthly 16 thousand local currencies equivalent to around 200 USD. Among the respondent 78.91% are housewife and rest of them are related with day labor, service, garments, small business farming etc. More importantly, women house is made of muddy floor and housing material are bamboo, soil and wood. Around 77% respondent had sanitary latrine and above 98% had electricity facilities. Surprisingly, 19.5% women had own land for residence. However, the overall socio-economic condition of women is improving in developing country like Bangladesh, but it is still not sufficient for many.

**Keywords:** Socio-Economic, Condition, Rural, Women, Bangladesh

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### I. Introduction

Bangladesh is one of the world's most densely populated countries with 150 million people, 26% of whom live below the national poverty line of us \$2 per day (Heartbreak, 2010). Half of the total population of this country is women whose socio-economic condition is very low. Women in Bangladesh suffer from multiple deprivations in social and economic spheres of their life due to the prevalent socio-economic phenomena. Most of the women live in rural areas of Bangladesh, where majority of them play a vital role in the areas of management of crops, livestock, fisheries, biological diversity, energy and family. Even though the economic contribution of rural women is substantial, it is largely unacknowledged (Parveen *et al.*, 2009) [1].

Mallick, B., & Bogt, j. (2012) study found that income and asset distribution play a vital role in deciding movement. [2] (kobayashi, h. *Et al.*, 2011) study revealed that 100% of the households used biomass, 98% kerosene, 61% electricity, 23% LPG and 5% candle in the rural areas. In the semi-urban areas, 100% of the households used electricity, candle and natural gas, 60% kerosene and 13% petrol. [3]

(Streatfield, p. K. *Et al.*, 2010) found that men were the main participants in paid work and community groups, with 62% reporting engagement in paid work and 44% contributing to community groups. Both men (95.4%) and women (91.9%) reported performing at least one domestic activity. [4]

(Miller, g., & Mobarak, a. M. 2013) suggest that if women cannot make independent choices about household resource use, public policy may not be able to exploit gender differences in preferences to promote technology adoption absent broader social change. [5]

(Aad, Georges, et al. 2013) a high prevalence of malnutrition was found out in both genders: 26% of f and 16.3% of M were classified as being malnourished (MNA<17); 40.9% of f and 35% of M were at risk of malnutrition (MNA 17–23.5). The prevalence of malnutrition was significantly higher in subjects in both sexes. Moreover, a relationship was shown between malnutrition and inability to shop, prepare and cook meals because of a low income, distance from markets or supermarkets as well as impossibility to drive the car or to use public transportation. [6]

(Keshri, K., & Joe, W. 2013) examines the intra-city distribution of women's nutritional status across eight Indian mega-cities with a specific focus on slum–non-slum divide. The analysis is based on the national family health survey (2005–06) of India and highlights the dual burden of malnutrition among urban women. The results show that one in every two women in mega-cities is malnourished (either undernourished or over nourished), but a biased, analytical focus on citywide averages conceals the nature of the problem. Over

nutrition among women is notably higher in non-slum areas whereas underweight persists as a key concern among slum dwellers. [7]

Rural areas still account for almost half the world's population, and about 70% of the developing world's poor people. [8]

In the rural Bangladesh, the women are facing a variety of discrimination due to existing socio-economic set up and some important environmental perspectives where dietary status of rural women is considered one of the most important issues. A number of studies have found evidence that nutrition knowledge differs significantly between socio-demographic groups, with poorer knowledge among those of lower socio economic condition (Buttriss, 1997; [9] Crawford and Baghurst, 1990[10]; Hansbroet *et al.*, 2000[11]). In developing countries, great interest has also been paid to a balanced and diversified diet, especially in relation to problems caused by nutritional deficiencies and their consequences (WHO/FAO, 1996). [12]

A focus on socio economic status (SES) and women's diet is important for a number of reasons. Firstly, the diets of women are qualitatively and quantitatively different from those of men. For example, women's diet is usually more consistent with dietary guidelines, with women more likely to report that they purchase, prepare, cook and consume food that is considered healthier (Fonagy, Peter, *et al*1991) [13]. In addition, despite increased participation in the labor market in recent years, women are still largely responsible for the provision of food in households (Lester *et al.*, 1994). [14]

Diverse socio-economic, environmental and demographic factors affect dietary consumption. In addition, cultural perceptions and traditions influence food intake. Dietary patterns have predominantly changed in composition, with traditional high-carbohydrate diets being replaced by diets higher in fat. The scientific community has long been interested in the overall quality of diets, owing to the fact that it is important for each individual's health to meet his/her needs for different nutrients through a healthy, varied and balanced diet.

Past research indicates that when people eat alone, levels of food consumption tend to be lower than when people eat with others or in a group setting (Nestle *et al.*, 1998).[15] people living in rural areas have shorter life expectancies and higher rates of disability and experience more accidents, poisonings and incidents of violence than their urban counterparts (Sutherns, *et al.*, 2004).[16]as a result, women are disproportionately affected by the lack of access to a range of health care services close to home, not only they tend to be the main users of health care services but also they are "traditionally responsible for maintaining life at home if a family member needs to travel elsewhere for care" (Sutherns *et al.*, 2004)[17].within families, women's own food intakes may be negatively influenced as they often sacrifice their own food preferences for those of other family members, particularly their children (Charles and Kerr, 1988).[18] compared with those of low socioeconomic status (SES), individuals of high SES tend to follow a diet that is more in line with dietary guidelines for health. For example, lower SES individuals are more likely to consume diets high in fat, low in micronutrient density and to have lower intakes of fruit and vegetables (Davey and Brunner, 1997). [19] as a result, studies repeatedly find that people of low SES groups possess nutrient intakes and dietary patterns that increase the risk of diet-related disease and overall health inequalities (Kaplan and Keil, 1993). [20]

The present study is an effort to determine socio-environmental condition of the rural women.

## **II. Methodology**

Methodology is one of the important things in the research. Research quality depends on what method followed by the research. At least one dozen methods have in anthropological research. It depends on researcher what method is used.

### **1.1 TYPE OF STUDY**

The study is explorative and to some extent descriptive in nature that enforces to adopt mixed with qualitative and quantitative data as well as secondary and primary data.

### **1.2 PLACE OF STUDY**

For any type of research, it is necessary to select a study area for fulfillment of the objectives of the research, acceptability of the data is another reasons behind the selection to study area. In this study researcher would like to observe the socio-economic condition of the rural women at Pabna in Bangladesh

### **1.3 SAMPLE SIZE**

Sample size from this unknown population, a statistical formula given by Cochran (1963) has been used.

$$n = \frac{Z^2 pq}{e^2}$$

Where, n= sample size

$Z$ = confidence level at  $(1-\alpha)$ ,  
 $P$ =estimated population proportion (0.5, this maximizes the sample size),  
 $Q$ =  $(1-p)$ ,  
 $E$ = error limit  $\alpha$ ,

$$\text{Therefore, } n = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 384$$

According to this formula, size of sample of this study has been determined as total 384

#### 1.4 SAMPLING TECHNIQUE

Sampling is one of the most important things in the research. It is impossible to study all the population within short time that's why we made sampling. We used the purposive sampling. Our research is related with rural women that's why we selected rural women as our respondent.

### III. Result and discussion

#### 3.1 SOCIO-ECONOMIC CONDITION

##### 3.1.1 EDUCATION STATUS OF RURAL WOMEN IN THE STUDY AREA

Socioeconomic condition is link with the women education. That is why to know about educational condition of rural women is very necessary.

**Table 1** education status in the study area

Education	Percent (%)
No education	8.38
Non-formal education	3.93
Primary	13.87
Class vi to x	27.49
S.S.C.	18.85
H.S.C.	12.57
Degree	8.12
Others	6.81

Table 1 shows, only 8.38% respondent had no education. Among the literate respondents around 14% completed primary education, 27.49% high school, 18.85% completed S.S.C, 12.57% completed H.S.C and 8.12% were graduates. Most of the respondents were literate, around 4% people involved in non-formal education. It seems that more people are taking education now a day. The general education system is also dominant over other form of education. We found increased education, higher socioeconomic status, non-Muslim religion, and extended family residence to be associated with lower risks of violence. [21]

##### 3.1.2 OCCUPATIONAL STATUS OF RURAL WOMEN IN THE STUDY AREA

Occupation is another important indicator to understand the socio-economic condition of rural women

**Table 2** occupation status in the study area

Occupations	Percent (%)
Housewife	78.91
Day labor	8.85
Service holder	4.69
Ayah/ Bua (female home servant)	2.60
Garments workers	2.08
Others	1.82
Small business	0.78
Farmer	0.26

Table 2 shows, there were 78.91% of the total respondents who were housewife. Among the other two major group of respondent's day labors were 8.85% and service holders were 4.69%. Most of the respondents are housewife. But there is also other form of economic activities familiar among the respondents.

##### 3.1.3 INCOME OF RURAL WOMEN

**Table 3** income category in the study area

Income category	Percent (%)
0-10000	20.3
10001-20000	36.4

20001-30000	30.5
30001-40000	7.0
40001-50000	4.3
>50001	1.6

Table 3 shows most of the respondents, approximately 57% had income below 20000 bdt margin. Among the six categories, the group 10001 to 20000 had 36.4% of the respondents. Around 12% of the respondents earned more than 30000 BDT. 20.3% of the respondents earned less than 10000 bdt. The table shows that middle class income group is dominant here. There were around 13% of families among the respondent who had more than a thousand taka per day income that is quite a good income from our social perspective.

Similar condition found in a study. The results are based on data from the world fertility survey conducted in Bangladesh, Fiji, Indonesia, Jordan, republic of Korea, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Turkey, Colombia, Costa Rica, Dominican Republic, Guyana, Jamaica, Mexico, Panama, and Peru, and were gathered from ever-married women aged 15-49. Education plays an important role in overcoming poverty by increasing incomes, improving health and nutrition, and decreasing family size. The data show that higher proportions of women than men are illiterate in all countries except Colombia. The disparity is particularly pronounced in Turkey and Jordan, where about 1/2 of all women are illiterate compared to only 13% of their husbands. Female illiteracy is more prevalent in Asian, particularly Islamic, countries than in Latin American/Caribbean countries. In 1/2 of the Asian countries, 50% of the women have no education; some education is more prevalent among Latin American women. Few women have continued their education beyond the secondary level. In examining educational attainment over the last 25 years, the data indicate progress in almost all countries. Within countries, educational attainment is affected by urban or rural residence; urban women are better educated. Employment outside the home is a solution to many problems related to poverty and high fertility. [22]

The analysis draws on in-depth interviews with 34 female sewing machine operators at five factories. Despite the traditionally low economic autonomy of Bangladeshi women, the women's ability to control their income was varied, and in fact, a substantial number of the women workers exercised full control over their wages. Socioeconomic background affected women's income control by shaping both the symbolic meaning of women's income and the ability of male kin to fulfill their traditional obligations to women.

**3.1.4 FAMILY SIZE IN THE STUDY AREA**

**Table 4** family size in the study area

Family member	Percent (%)
1	1.30
2	12.50
3	31.51
4	36.72
5	17.97

Table 4 shows, most of the family of the respondents had 4 members in their family. 17.97% of the respondents had 5-member's family and only 1.30% of respondents had single lifestyle. From the table we understand that more and more people pursuing small family. The statistics shows the popularity of small family in our society. Ahmed, N. R. (1981) said that in future family size will be small and we found similar result in our study. [23]

**3.1.5 HOUSING MATERIALS IN THE STUDY AREA**

**Table 5** housing materials (%) in the study area.

Material	Bamboo / soil	Tin / wood	Cement
Floor	23.24	2.87	73.89
Wall	2.43	27.57	70
Roof	0.54	55.11	44.35

The table 5 shows, there were only 23.24% people had muddy floor. As for roof tin was more popular over cement. Cement was the popular housing material in comparison to bamboo/soil and tin/wood. Parental care in the study area of the rural women.

**Table 6** parental care in the study area of the rural women.

Variables	Frequency	Percent (%)
Infant	Present	49
	No infant	335
Sex of the infant	Male	21
	Female	28
Breastfeeding	Yes	47
	No	2

Colostrum	Yes	45	91.84
	No	4	8.16
Pre-lacteal feeding	Yes	2	4.88
	No	39	95.12

Table 6 shows infant related information. Among the respondents, only 12.76% respondent currently had infant. All but two infants were breastfed. There were four children left from taking colostrum's.

(Datta, S. *Et al.*,1993). Child feeding practices differed with mother's education and with household education. [24]

(Huq, E., &D'souza, s. 1981) found that sex-biased attitudes and practices might operate to affect health, nutrition, and mortality is postulated. In-depth empirical data are presented from rural Bangladesh to examine the validity of the hypothesis that sex-based health and nutrition behavior discriminates against female children. [25]

(Shah, N. M., & Becker, s. 2010) study finding was that a household's relative poverty status, as reflected by wealth quintiles, was a major determinant in health-seeking behavior. [26]

(Ware, H. 1984) found in his study education has an impact not only through the characteristics of the individual mother but also through the educational level of the society as a whole. [27]

### 3.1.6 LATRINE, DRINKING WATER AND ELECTRICITY SERVICES IN THE STUDY AREA OF RURAL WOMEN

**Table 7** latrine, drinking water and electricity services in the study area of rural women

Variables		Frequency	Percent
Latrine type	Hanging	1	.3
	Service l	4	1.0
	Sanitary l	298	77.6
	Others	81	21.1
Source of drinking water	Supply water	5	1.3
	Boiled water / tube well	377	98.2
	Other	2	.5
Electricity status	Electricity supply	378	98.4
	No electricity supply	6	1.6
Drainage system	No drain	96	25.0
	Provisional drain	122	31.8
	Permanent drain	166	43.2
Cooking place	Separate room	383	99.7
	Verenda	1	.3

The table 7 shows around 77% respondent had sanitary latrine and above 98% had electricity facilities. People here use either tube well or boiled water for drinking purpose. Only 1.3% people drink supply water directly.

Widespread arsenic contamination of groundwater in Bangladesh places the health of millions of Bangladeshis in jeopardy. Ninety-five percent of the population of Bangladesh is estimated to rely on groundwater for drinking purposes and naturally occurring arsenic contaminates over a fourth of the groundwater in Bangladesh. [28]

### 3.1.7 LAND OWNERSHIP OF RURAL WOMEN

**Table 8** land ownership of rural women

Own land for residence	Frequency	Percent
Yes	309	80.5
No	75	19.5

Table 8 shows that 80.2% respondent had their own land as residential purpose. Other those who do not have own land were poor people lived in cluster village, a government project to rehabilitate landless poor people.

## 3.2 ENVIRONMENTAL CONDITION

### 3.2.1 SOURCES OF FISH AND TYPE OF FISH

**Table 9** collecting fish and type of fish in the study area

Variables	Frequency of female	% of female
Sources of collecting fish	Pond	0.52%
	River	0.26%
	Market	99.22%
Type of fish you like	Small fish	81.77%

	Large fish	70	18.23%
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The table 9 show that 99% respondent collect fish from market, only.52% collect from pond. Interestingly,81% respondent like small fish.

**3.2.2 VEGETABLE RELATED ENVIRONMENTAL CONDITION**

**Table 10** vegetable related condition in the study area

Variables		Frequency of female	% of female
Type of vegetable you cook	Costly	264	68.75
	Cheap	220	57.29
Sources of collecting vegetables	Cultivated	32	8.33
	Bought from market	352	91.67
Checking during buying vegetables	Color	165	42.97%
	Freshness	164	42.71%
	Affected by insect	55	14.32%
What do you eat among your cultivated vegetables	Fresh	211	54.95%
	Affected by insect	173	45.05%
Using insecticide while farming vegetables	Yes	7	1.82
	No	377	14.06
Consume any next to house vegetables	Arum	285	74.22%
	Bothuya	99	25.78%

The table 10 shows that 91% respondent collect vegetable from market and for buying vegetable they consider color and freshness of vegetable which is respectively around 42 %.

**3.2.3 HAND WASHING CONDITION**

**Table 11** rural women hand washing condition in the study area

Variables		Frequency of female	% of female
Washing hand before taking meal	Yes	382	92.45
	No	2	0.52
Washing hand after using toilet	Yes	381	99.22
	No	3	0.78
Who wash clothes	Own self	372	96.88
	Family	10	2.6
	Others	2	0.52

Table 11 shows that 92.45% respondent wash hand before taking meal and interestingly 99.22 respondents wash their hand after toilet. More interestingly, 96.88 wash their cloth by herself.

(Hoque, B. A. 2003). Said that socio-economic factors are also associated with methods hand washing practiced. In general, the effectiveness of hand washing practices is poor. About 85% of women studied who lived in slums and 41% of rural women washed their hands using only water. However, most women rubbed their hands on the ground, or used soil, and rinsed them with water during post-defecation hand washing. [29]

(Aziz, k. M. *Et al.*,1996) found that fewer latrines were functional in 1992 (64%) than at the end of 1987 (93%). In the former intervention area about 84% of the adults were using sanitary latrines in 1992 compared with only 7% in the control area. [30]

**IV. Conclusion**

This study provided a wide range of information on the socio-economic condition of rural women that contain education, occupation, income, housing, latrine, source of drinking water etc. We collected data from only female respondents because of the research demand. Around 91% of them were literate and 78.91% of them were housewife in occupations. 87.2% of the respondent had less than 30000 BDT of family income. Research shows that in Bangladesh rural women socio-economic condition is gradually improving.

**References**

- [1] Parveen, S. and Rahman, C.M.S. (2009). Micro-credit Intervention and its Effects on empowerment of Rural Women, BRAC
- [2] Mallick, Bishawjit, and Joachim Vogt. "Cyclone, coastal society and migration: empirical evidence from Bangladesh." *International Development Planning Review* 34.3 (2012): 217-240.
- [3] Dee, D. P., et al. "The ERA-Interim reanalysis: Configuration and performance of the data assimilation system." *Quarterly Journal of the royal meteorological society* 137.656 (2011): 553-597.
- [4] Chowdhury, Hafizur Rahman, et al. "Causes of neonatal deaths in a rural subdistrict of Bangladesh: implications for intervention." *Journal of health, population, and nutrition* 28.4 (2010): 375.
- [5] Miller, Grant, and A. MushfiqMobarak. *Gender differences in preferences, intra-household externalities, and low demand for improved cookstoves*. No. w18964. National Bureau of Economic Research, 2013.
- [6] Aad, Georges, et al. "Jet energy measurement with the ATLAS detector in proton-proton collisions at  $\sqrt{s} = 7$  TeV." *The European Physical Journal C* 73.3 (2013): 2304.
- [7] Gaur, Kirti, KunalKeshri, and William Joe. "Does living in slums or non-slums influence women's nutritional status? Evidence from Indian mega-cities." *Social Science & Medicine* 77 (2013): 137-146.
- [8] Cohen, Barney. "Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability." *Technology in society* 28.1 (2006): 63-80.
- [9] Buttriss, Judith L. "Food and nutrition: attitudes, beliefs, and knowledge in the United Kingdom." *The American journal of clinical nutrition* 65.6 (1997): 1985S-1995S.
- [10] Crawford, D. A., and K. I. Baghurst. "Diet and health: a national survey of beliefs, behaviours and barriers to change in the community." (1990).
- [11] Hansbro, J., Bridgwood, A., Morgan, A. and Hickman, M. (1997). Health in England 1996: What People Know, What People Think, What People Do: A Survey of Adults Aged 16-74 in England carried out by Social Survey Division of ONS on behalf of the Health Education Authority. London: Stationery Office.
- [12] WHO, FAO. "IAEA." *Trace Elem Human Nutr Health* (1996): 105-120.
- [13] Fonagy, Peter, et al. "The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment." *Infant mental health journal* 12.3 (1991): 201-218.
- [14] Hammond, Brian L., William A. Lester, and Peter James Reynolds. *Monte Carlo methods in ab initio quantum chemistry*. Vol. 1. World Scientific, 1994.
- [15] Nestle, Marion, et al. "Behavioral and social influences on food choice." *Nutrition reviews* 56.5 (1998): 50-64.
- [16] Sutherns, Rebecca, Marilou McPhedran, and Margaret Haworth-Brockman. *Rural, remote and northern women's health: policy and research directions: final summary report*. Centres of Excellence for Women's Health= Centresd' excellence pour la santé des femmes, 2004.
- [17] Sutherns, Rebecca, Marilou McPhedran, and Margaret Haworth-Brockman. *Rural, remote and northern women's health: policy and research directions: final summary report*. Centres of Excellence for Women's Health= Centresd' excellence pour la santé des femmes, 2004.
- [18] Charles, Nickie, and Marion Kerr. *Women, food, and families*. Manchester University Press, 1988.
- [19] Smith, George Davey, and Eric Brunner. "Socio-economic differentials in health: the role of nutrition." *Proceedings of the nutrition society* 56.1A (1997): 75-90.
- [20] Kaplan, G.A. and Keil, J. (1993). Socioeconomic factors and cardiovascular disease: a review. *Circulation*, 88; 1973-1998.
- [21] Sambisa, William, et al. "Prevalence and correlates of physical spousal violence against women in slum and nonslum areas of urban Bangladesh." *Journal of interpersonal violence* 26.13 (2011): 2592-2618.
- [22] Curtin, Leslie B. "Status of women: a comparative analysis of twenty developing countries." (1982).
- [23] Ahmed, Nilufer R. "Family size and sex preferences among women in rural Bangladesh." *Studies in Family Planning* (1981): 100-109.
- [24] Guldan, Georgia S., et al. "Maternal education and child feeding practices in rural Bangladesh." *Social Science & Medicine* 36.7 (1993): 925-935.
- [25] Chen, Lincoln C., Emdadul Huq, and Stan d'Souza. "Sex bias in the family allocation of food and health care in rural Bangladesh." *Population and development review* (1981): 55-70.

- [26] Amin, Ruhul, Nirali M. Shah, and Stan Becker. "Socioeconomic factors differentiating maternal and child health-seeking behavior in rural Bangladesh: A cross-sectional analysis." *International journal for equity in health* 9.1 (2010): 9.
- [27] Ware, Helen. "Effects of maternal education, women's roles, and child care on child mortality." *Population and Development Review* 10 (1984): 191-214.
- [28] Aziz, Sonia. *Valuation of avoiding arsenic in drinking water in rural Bangladesh: an averting behavior analysis*. Diss. The University of Maine, 2007.
- [29] Hoque, Briend A. "Handwashing practices and challenges in Bangladesh." *International Journal of Environmental Health Research* 13.sup1 (2003): S81-S87.
- [30] Hoque, Bilqis A., et al. "Sustainability of a water, sanitation and hygiene education project in rural Bangladesh: a 5-year follow-up." *Bulletin of the World Health Organization* 74.4 (1996): 431.

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