

QUANTIFICATION OF THE CONTRIBUTION OF RURAL WOMEN IN  
SOCIOECONOMIC DEVELOPMENT

**ABSTRACT**

In Bangladesh, rural women contribute in social development and they are good partners to economic development too. However, their contribution to the socioeconomic development by spending time in various ways has not been quantified yet. The study aimed to quantify the extent of contribution of rural women in socioeconomic development at two villages named Sachibunia and Islamnagar of Batiaghata upazila under Khulna District of Bangladesh. Data were collected from purposively selected 120 respondents using a structured interview schedule on 14 selected characteristics of the respondents which were treated as independent variables. The extent of contribution to socioeconomic development was the dependent variable. Spearman's rank order correlation co-efficient ( $\rho$ ) was computed to ascertain the relationships between the selected characteristics and dependent variable. Rural women's performed different daily activities and spent time for those activities were converted into money. Through this way, the obtained quantified contribution to family income of the unemployed respondent was 26% and of employed respondent was 50%. Quantified contribution to family income by educated paid respondent was 48% and by highly educated paid respondent was 60%. Quantified contribution to family income by low educated unpaid respondent was 29% and by highly educated unpaid respondent was 23%. The average quantified contribution to family income made by rural women was 53.32% which had been ultimately used for better standards of living. Negative significant relationship was found between the faced problems and their contributions in socioeconomic development. Family is the smallest constituting unit of the society and the country as well. Thus, it could be concluded that the contribution made by women in socioeconomic development is more than its men counterpart at rural level. It might be recommended that, adequate support should be provided to rural women to nurture this contribution by ensuring due acknowledgement and honor for them.

*Key words: Contribution, Rural women, Income generating activity, Participation, Socioeconomic development.*

**1. INTRODUCTION**

In Bangladesh, women is about half of the total population [1] and have an important role in economic activities [2] which leads to the entire social development of the country. This scenario is same for urban and rural areas. Therefore, in order to achieve rural development, an attention to women that involves economic and other development activities with men is required. Rural women contribute in socioeconomic development as they are involved in different forms of economic activities for their families. Such economic activities include agriculture, trade, gardening, social forestry, food processing, hairdressing, weaving and so on. To explain the important roles played by women, the world conference on the "United Nations Decades for Women" stated that two-third of the total daily life works done by women, especially by the rural women who live in rural communities with poor social amenities [3]. However, still the worth of the economic activities of rural women in the area of sustainable development is not well recognized.

41 Bangladesh is basically an agricultural country. Agriculture contributes about 14.74% to country's total  
42 GDP [4]. Sustainability in agricultural systems center on the need to develop technologies and practices,  
43 which do not have adverse effects on environmental goods and services, which are accessible to and  
44 effective for farmers, and which lead to improvements in food productivity. Rural women are inherently  
45 involved in this sustainable form of agricultural production from the time immemorial [5]. As half of the  
46 total population, women's participation and their role in economic structures is an indicator of the  
47 modernization of the national economy and economic development [6]. Development strategies should be  
48 based on a more active participation of rural women in economic activities. Providing the fact that women  
49 make the half of the population in rural communities is considered the vital manufacturers of food and  
50 income for rural households which are the important aspects of agricultural production as well as  
51 socioeconomic development all over the world. Women in our rural area greatly contribute through their  
52 household and agricultural work but their work has hardly been recognized. The women in rural areas of  
53 Bangladesh usually start their works before dawn and continue working till dusk, sometimes even late at  
54 night. They execute all household works, take care of the children and aged family members, shares  
55 homestead-centered agricultural operations (e.g., postharvest activities, homestead gardening, cattle  
56 rearing, etc.) with their husbands and so on. They do not care for any monetary return or formal  
57 recognition. As a consequence valuation of their works has not been done, even simple appreciation has  
58 not been made. However, now it is time for recognition of their immense contribution to every aspects of  
59 family life which in the long run profoundly contribute to socioeconomic development of the country. The  
60 present socioeconomic characteristics of the rural women also deserve to be described. Considering  
61 these facts the researchers persuaded to conduct the present research with the following specific  
62 objectives.

- 63 i. To diagnose and describe the personal socioeconomic characteristics of the rural women.
- 64 ii. To quantify the contribution of rural women in socioeconomic development.
- 65 iii. To explore the relationships between selected characteristics of rural women with their  
66 contribution in socioeconomic development.

67

68

## 69 2. METHODOLOGY

70 The design of the study was a descriptive and diagnostic survey research, keeping the vision of  
71 ascertaining the relationships between selected characteristics of rural women with their contribution in  
72 socioeconomic development. The study was designed to describe the contribution of rural women in  
73 socioeconomic development through quantification process by converting time into money. Data were  
74 collected by conducting a face-to-face interview with respondents using a structured interview schedule  
75 containing quantitative and qualitative questions of both open and close types. The study was conducted  
76 in two villages namely Sachibunia and Islamnagar under Batiaghata upazila of Khulna district in  
77 Bangladesh. A list of women performing different productive activities related to socioeconomic  
78 development were collected with the help of field level officers (Upazila Agriculture Officer (UAO) and the  
79 concerned Sub Assistant Agriculture Officers (SAAOs)) of the Department of Agricultural Extension  
80 (DAE). The total number of women were considered as the population of the study and among them  
81 sample were selected purposively. Irrespective of size of population of the selected two villages, the  
82 researcher selected 120 women taking 60 from each of the villages. In order to collect relevant  
83 information from respondents, an interview schedule was carefully prepared focusing the objectives of the  
84 study. The interview schedule differed from questionnaire as the enumerating researcher directly visited  
85 the respondent and wrote the furnished responses and opinions of both quantitative and qualitative types

86 by himself. Both open and close form as well as simple and direct questions were included in the  
 87 interview schedule. The questions were systematically arranged to help the respondents to understand  
 88 the consequence easily. Appropriate scales were used for collecting information required for measuring  
 89 the selected characteristics. Before finalization, the interview schedule was pre-tested with 10 women of  
 90 the study area who were excluded from the sample. On the basis of the pre-test experiences, corrections,  
 91 modifications and alterations were made before finalizing the interview schedule for final data collection.  
 92 During modification of the schedule, valuable suggestions were received from the relevant experts. Data  
 93 were collected from the respondents during January to February, 2019. During this time the researcher  
 94 had to made several visits for collecting valid and reliable data from the respondents. After completion of  
 95 the data collection, collected data were summarized and inspected thoroughly. A master sheet was  
 96 prepared to tabulate the data by transferring all the individual variables in order to meet the objectives of  
 97 the study. During data processing, appropriate scoring technique was followed to convert the data into  
 98 quantitative form in case of qualitative data. Local units of measurements were converted into standard  
 99 units. In case of some variables, proper indices and scales were made through the simple accumulation  
 100 of score assigned to individual attributes. All personal characteristics were categorized and arranged in  
 101 simple tables for interpretation and discussion. (independent variables) of the respondents were age,  
 102 educational qualification, family size, farm size, annual family income, organizational participation,  
 103 extension media contact, training exposure, poverty status, number of performed daily activities, time  
 104 spent in performed daily activities, involvement in income generating activities, role in decision making  
 105 and problems faced by respondent for participating in income generating activities. The extent of  
 106 contribution to socioeconomic development was the dependent variable.

107 Contribution in terms of money (time spent for performing different daily activities converted into money)  
 108 constituted dependent variable of the study. Time spent for performing different daily activities was  
 109 converted into money by using formula. For example, a woman performing different types of daily  
 110 activities was asked how many hours per day she had spent for those activities. Suppose, she had spent  
 111 8 hours. A standard working day = 8 hours, and 8 hours working a day equivalent to 500 BDT (general  
 112 monetary payment for a worker). For 8 hours per day, earning money = 500 BDT. Women usually  
 113 perform different types of activities every day without any weekly leave. Thus, monthly earning =  
 114 (500×30) BDT= 15,000 BDT. Similarly, yearly earning = (500×365) BDT = 1,82,500 BDT. This conversion  
 115 was established through experts' discussion held in Agrotechnology Discipline of Khulna University,  
 116 Bangladesh.

117 Contribution to family income (%) by respondent was quantified by using the following formula:

118 
$$\text{Quantified contribution to family income by respondent (\%)} = \frac{\text{Annual income by respondent}}{\text{Total annual family income}} \times 100$$

119 Role in decision making regarding different family affairs by women was also measured. Decision score  
 120 (DS) and Decision Index (DI) were calculated by using the following formulae:

121 
$$DS = (N_1 \times 0) + (N_2 \times 1) + (N_3 \times 2) + (N_4 \times 3)$$

122 Where,

123 
$$DS = \text{Decision Score}$$

124  $N_1$  = No. of respondents played no role

125  $N_2$  = No. of respondents played rare role

126  $N_3$  = No. of respondents played passive role

127 N<sub>4</sub>= No. of respondents played active role

$$128 \text{ Decision Index} = \frac{\text{Observed decision score}}{\text{Possible highest decision score}} \times 100$$

129 Following the above mentioned similar way, the Problem Score (PS) and Problem Index (PI) was  
130 calculated.

131 Various statistical measures such as number, mean, standard deviation, minimum, maximum and  
132 percentage were used in describing the independent and dependent variables of the study. For clarity of  
133 understanding, tables were used to present the data. Spearman's rank order correlation co-efficient ( $\rho$ ) (a  
134 nonparametric measure of the strength and direction of association that exists between two variables  
135 measured on at least on an ordinal type data) was computed for exploring the relationships between the  
136 selected characteristics of the respondents and their contribution in socioeconomic development. Data  
137 were analyzed by using the Statistical Package for Social Science (SPSS).

### 138 3. RESULTS AND DISCUSSION

#### 139 3.1 Selected characteristics of the rural women

140 The results of selected characteristics have been shown in Table 1. It is observed in this Table that,  
141 middle aged women (44.2%) were highly involved in socioeconomic development followed by young aged  
142 (40%) and old aged (15.8%) women. About half (46.7%) of the respondents had secondary level of  
143 education followed by primary level (30.8%), and illiterate (11.7%). 3.3% of the respondents had above  
144 higher secondary level of education. Half (50.8%) of the respondents had medium sized family followed  
145 by small sized family (35.8%) and large sized family (13.3%). About half (45.8%) of the respondents had  
146 small sized farm and only 3.3% had large sized farm. However, 7.5% of the respondents had medium  
147 sized farm and 30.8% of the respondents had marginal sized farm and only 12.5% of the respondents  
148 were landless. Highest proportion (45.8%) of the respondents had medium family income followed by low  
149 income (31.7%) extremely low income (11.7%), and high income (10.8%). 58.3% of the respondents had  
150 medium participation, 30% had low participation and 3.3% high participation in any social organization.  
151 Very few (8.3%) of the respondents had no participation in any social organization. Half of the rural  
152 women (49.2%) had low extension contact followed by medium extension contact (47.5%). There were so  
153 small amount of women (3.3%) who had higher extension contact. Most of the respondents (85.8%) had  
154 attended low number of training followed by no training (8.3%). 4.2% of the respondents had attended  
155 medium number of training opportunity followed by high number of training (1.7%). Most (81.7%) of the  
156 respondents had low status in terms of poverty profile. About half (52.5%) of the respondents were  
157 involved in medium number of daily activities followed by high number of daily activities (41.75), and 5.8%  
158 were involved in low number of daily activities. About four-fifth (78.3%) of the respondents spent  
159 moderate time in performing different types of daily activities whereas one-fifth (20%) of the respondents  
160 spent long time. 43.8% of the respondents were involved in moderate number of days per month for  
161 performing different types of income generating activities whereas 29.8% were involved in short number  
162 of days and 25.6% were involved long number of days. About half of women (47.5%) had medium role in  
163 decision making for different activities whereas 45.8% had low role and only 6.7% of had high role in  
164 decision making for different activities. More than half of the respondents (54.2%) faced low problem in  
165 taking part in income generating activities compared to high problem (27.5%) and medium problem  
166 (18.3%). (Table 1)

167 **Table 1. Distribution of rural women according to their selected characteristics (N= 120)**

Parameter	Category	Score	Respondents (N=120)		Mean	SD(±)	Min.	Max.
			Number	Percentage				
Age (Years)	Young	≤35	48	40	40.29	10.59	20	62
	Middle	36-50	53	44.2				
	Old	>50	19	15.8				
Education (Schooling years)	Illiterate	0	14	11.7	6.37	3.97	00	17
	Primary	1-5	37	30.8				
	SSC	6-10	56	46.7				
	HSC	11-12	9	7.5				
	Above HSC	Above 12	4	3.3				
Family size (No. of members)	Small	≤4	43	35.8	5.32	1.66	3	10
	Medium	5-7	61	50.8				
	Large	>7	16	13.3				
Farm size (Hectare)	Landless	< 0.02	15	12.5	0.65	0.79	0.01	4
	Marginal	0.02-0.20	37	30.8				
	Small	0.21-1.0	55	45.8				
	Medium	1.01-3.0	9	7.5				
	Large	>3	4	3.3				
Annual income (BDT)	Extreme	≤ 1,20,000	14	11.7	2,49,475	82151.21	1,12,000	3,90,0000
	Low	1,20,001-2,40,000	38	31.7				
	Medium	2,40,001- 3,60,000	55	45.8				
	High	>3.60,000	13	10.8				
Organizational Participation (Score)	No	0	10	8.3	9.13	4.8	00	19
	Low	1-8	36	30				
	Medium	9-16	70	58.3				
	High	>16	4	3.3				
Extension contact (Score)	Low	≤ 20	59	49.2	22.74	8.62	6	42
	Medium	21-40	57	47.5				
	High	> 41	4	3.3				
Training exposure (Number)	No	0	10	8.3	2.33	1.21	0	6
	Low	1-4	103	85.8				
	Medium	5-8	5	4.2				
	High	>8	2	1.7				

168

169 Table 1. Continue...

Parameter	Category	Score	Respondents (N=120)		Mean	SD(±)	Min.	Max.
			Number	Percentage				
Poverty status (Score)	No	0	9	7.5	6.19	4.91	00	25
	Low	1-10	98	81.7				
	Medium	11-20	9	7.5				
	High	21-30	4	3.3				
Number of performed daily activity	Low	<4	7	5.8	6.67	1.93	3	10
	Medium	4-7	63	52.5				
	High	>7	50	41.7				
Time spent in performed	Short time	< 6	2	1.7	7.25	1.31	5	11

daily activities (Hours per day)	Moderate	6-8	94	78.3				
	Long time	> 8	24	20				
Involved in income-earning activity (Days per month)	Short	<15	36	29.8				
	Moderate	15-20	53	43.8	17.67	4.24	12	30
	Long	>20	31	25.6				
Role in decision making (Score)	Low	1-10	55	45.8				
	Medium	11-20	57	47.5	11.35	6.08	1	30
	High	21-30	8	6.7				
Problem faced (Score)	Low	0-28	65	54.2				
	Medium	29-39	22	18.3	28.48	11.67	4	50
	High	40-50	33	27.5				

170 SD= Standard deviation, Min.= Minimum, Max.= Maximum; BDT= TK= Bangladeshi Taka; Source: Field survey, 2019

### 171 3.2 Relative position (rank order) of the selected 15- decision making issues in 172 socioeconomic development

173 Role in decision making regarding different family affairs by women is an important consideration for  
174 measuring their contribution in socioeconomic improvement of a nation. Data represented in Table 2  
175 showed that among 15- decision making issues "rearing of poultry, goat and cattle ranked 1<sup>st</sup>, followed by  
176 "marriage of sons / daughters" (2<sup>nd</sup>) and "vaccinations of children" (3<sup>rd</sup>). On the contrary "marketing of  
177 farm products" and "buying or selling lands" ranked 15<sup>th</sup> and 14<sup>th</sup> respectively.

### 178 3.3 Relative position (rank order) of the selected 15- problems faced by rural women 179 during participation in income generating activities

180 There are different types of problems which are faced by rural women during participation in income  
181 generating activities. Among the 15- problems faced by women regarding participation in income  
182 generating activities, "lack of education" ranked 1<sup>st</sup>, followed by "lack of capital" (2<sup>nd</sup>) and "shortage of  
183 knowledge" (3<sup>rd</sup>). The lowest ranked problems were "religious" (15<sup>th</sup>), "superstition" (14<sup>th</sup>) and "social  
184 problem" (13<sup>th</sup>). Actually lack of proper and adequate education might be the center of all problems (Table  
185 3).

186 Table 2. Rank order of the selected 15- decision making issues in socioeconomic  
187 development based on decision score (DS) and decision index (DI) (N=120)

Nature of decision	Extent of role in decision making				DS	DI	Rank (15-issues)
	Active role (3)	Passive role (2)	Rare role (1)	No role (0)			
1. Buying or selling lands	5×(3)	6×(2)	9×(1)	100×(0)	36	10	14th

2. Taking or giving lands on lease	7×(3)	5×(2)	10×(1)	98×(0)	43	11.94	13th
3. Receiving credit	20×(3)	30×(2)	10×(1)	60×(0)	130	36.12	6th
4. House construction	5×(3)	20×(2)	10×(1)	94×(0)	55	15.27	10th
5. Vaccinations of children	40×(3)	40×(2)	20×(1)	20×(0)	220	61.11	3rd
6. Education of children	50×(3)	20×(2)	20×(1)	30×(0)	210	58.33	4th
7. Participation in ceremonies	20×(3)	20×(2)	10×(1)	70×(0)	110	30.55	8th
8. Cultivation of crops	8×(3)	12×(2)	20×(1)	80×(0)	68	18.88	9th
9. Rearing of poultry, goat and cattle	80×(3)	20×(2)	15×(1)	5×(0)	295	45	1st
10. Marriage of sons / daughters	70×(3)	30×(2)	15×(1)	5×(0)	285	79.16	2nd
11. Adoption of high yielding varieties	10×(3)	5×(2)	5×(1)	100×(0)	45	12.5	12th
12. Agricultural farm activities	20×(3)	30×(2)	10×(1)	60×(0)	130	36.11	5th
13. Buying of agricultural inputs	10×(3)	5×(2)	5×(1)	100×(0)	50	13.88	11th
14. Processing of farm products	30×(3)	20×(2)	10×(1)	60×(0)	120	33.33	7th
15. Marketing of farm products	5×(3)	5×(2)	8×(1)	102×(0)	33	9.1	15th

188

Source: Field survey, 2019

189 **Table 3. Rank order of the selected 15- problems faced by rural women during**  
190 **participation in income generating activities based on problem score (PS) and problem**  
191 **index (PI) (N=120)**

Problem	Extent of problem				PS	PI	Rank (15-issues)
	Extreme (3)	Moderate (2)	Rarely (1)	Not at all (0)			
1. Lack of education	106×(3)	10×(2)	0×(1)	4×(0)	338	93.88	1 <sup>st</sup>
2. Lack of awareness	39×(3)	68×(2)	3×(1)	10×(0)	256	70.48	4 <sup>th</sup>
3. Lack of family support	15×(3)	24×(2)	8×(1)	73×(0)	101	28.05	12 <sup>th</sup>
4. Lack of training	65×(3)	20×(2)	4×(1)	31×(0)	249	66.38	5 <sup>th</sup>
5. Gender discrimination	34×(3)	44×(2)	20×(1)	22×(0)	210	58.38	6 <sup>th</sup>
6. Shortage of knowledge	79×(3)	15×(2)	4×(1)	22×(0)	271	75.27	3 <sup>th</sup>
7. Lack of extension contact	20×(3)	48×(2)	17×(1)	35×(0)	173	48.05	8 <sup>th</sup>
8. Low wage	10×(3)	74×(2)	27×(1)	11×(0)	205	54	7 <sup>th</sup>

9. Low efficiency	10×(3)	50×(2)	32×(1)	28×(0)	162	45	10 <sup>th</sup>
10. Physical weakness	45×(3)	13×(2)	10×(1)	52×(0)	171	47.5	9 <sup>th</sup>
11. Lack of capital	101×(3)	4×(2)	0×(1)	15×(0)	311	86.38	2 <sup>nd</sup>
12. Social problem	4×(3)	27×(2)	17×(1)	72×(0)	83	23.05	13 <sup>th</sup>
13. Political problem	13×(3)	18×(2)	35×(1)	54×(0)	110	30.55	11 <sup>th</sup>
14. Superstition	3×(3)	11×(2)	15×(1)	91×(0)	46	12.77	14 <sup>th</sup>
15. Religious	0×(3)	3×(2)	22×(1)	95×(0)	28	7.77	15 <sup>th</sup>

192

Source: Field survey, 2019

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### 194 3.4 Quantification of contribution to socioeconomic development in terms of earning 195 money (yearly) by converting the spent time for performing different daily activities

196 Contribution to socioeconomic development in terms of earning money (yearly) as the money supposed  
197 to be gained rural women by converting the spent time for performing different daily activities ranged from  
198 1,00,000 BDT to 2,60,000 BDT with a mean of 1,33,033 BDT and standard deviation of 36,730.10 (Table  
199 4). On the basis of contribution to socioeconomic development in this way, the respondents were  
200 classified into three groups. Majority of the women (66.7%) was in low earning money group followed by  
201 25.5% in medium earning money group and 7.5% in higher earning money group (Table 4). The average  
202 quantified contribution to family income made by rural women was 53.32% which had been ultimately  
203 used for better standards of living (comparing between Table 1 and 4). Unemployed women had  
204 performed so many daily activities. Their contribution to family income was measured directly in terms of  
205 money as their passing time to different activities, not only household activities but also other income  
206 generating activities were converted into money. Annual quantified contribution of unemployed women to  
207 family income was 1,05,000 BDT whereas annual family income was 2,94,475 BDT and total income  
208 would be 3,99,475 BDT (Figure 1). Quantified contribution to family income of unemployed respondent  
209 was 26% (Figure 1).

210 Employed women had performed their activities and earned money to contribute in family income. Annual  
211 quantified contribution of women to family income was 2,50,000 BDT whereas annual family income was  
212 5,00,000 BDT and total income was also 5,00,000 BDT, because, as they had earned money directly  
213 their income was previously added with annual family income (Figure 1). Quantified contribution to family  
214 income of employed respondent was (50%) (Figure 1).

215 Low educated respondent (paid) had performed their activities and had earned money to contribute in  
216 family income. Annual quantified contribution of women to family income was 1,20,000 BDT whereas  
217 annual family income was 2,50,000 BDT and total income was also 2,50,000 BDT, because, as they had  
218 earned money directly their income was previously added with annual family income (Figure 1).  
219 Quantified contribution to family income of low educated respondent (paid) was 48% (Figure 1).

220 Highly educated respondent (paid) had performed their activities and had earned money to contribute in  
221 family income. Annual quantified contribution of women to family income was 3,00,000 BDT whereas  
222 annual family income was 5,00,000 BDT, and total income was also 5,00,000 BDT (the same reason as  
223 stated earlier in two cases) (Figure 1). Quantified contribution to family income of highly educated  
224 respondent (paid) was 60% and contribution by other members of the family was 40% (Figure 1).

225 Low educated respondents (unpaid) women had performed so many daily activities. Their contribution to  
 226 family income was measured directly in terms of money as their passing time to different activities, not  
 227 only household activities but also other income generating activities, converted into money. Quantified  
 228 contribution of women to family income was 1,00,000 BDT, whereas annual family income was 2,50,000  
 229 BDT and total income was 3,50,000 BDT (Figure 1). Quantified contribution to family income of low  
 230 educated respondent was 29% whereas contribution by other member of the family was 71% (Figure 1).

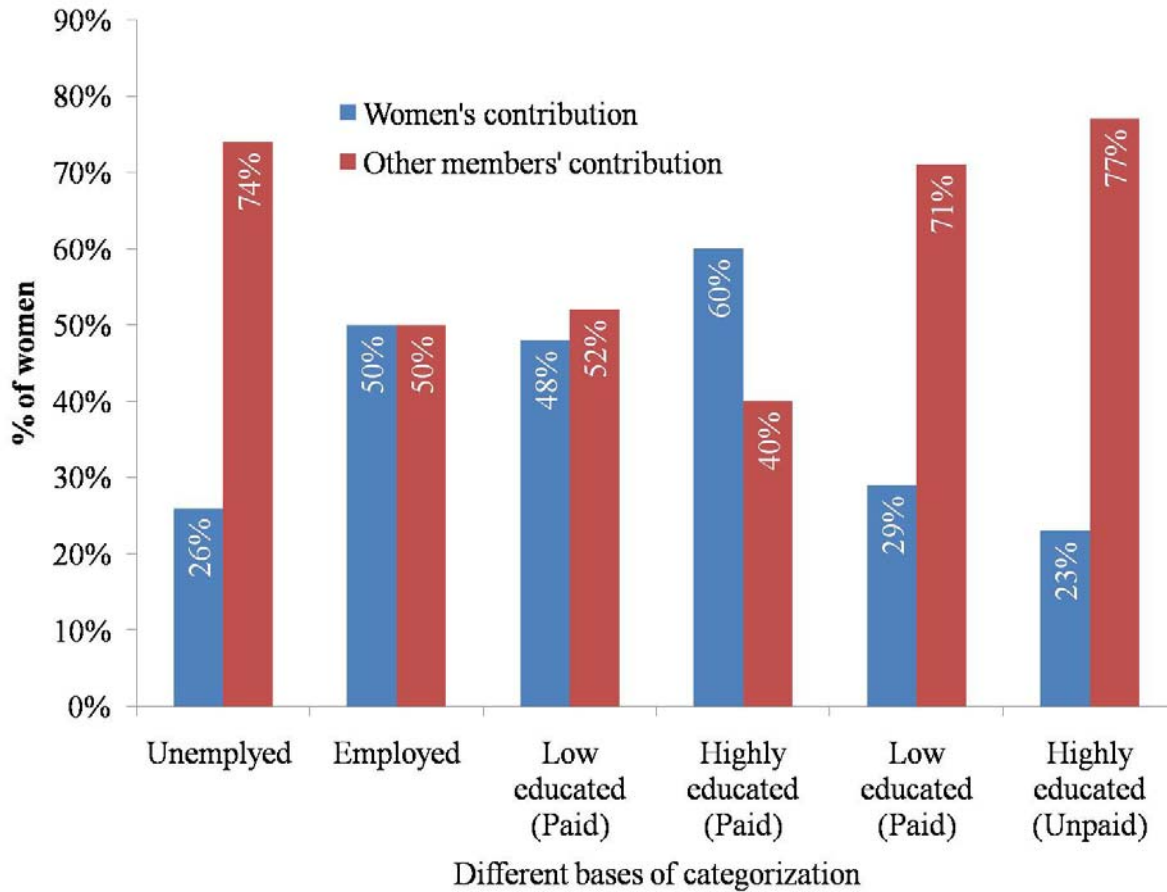
231 Highly educated respondents (unpaid) women had also performed so many daily activities. Their  
 232 contribution to family income was measured directly in terms of money on the basis of their passing time  
 233 to different activities, including other income generating activities, converted into money. Annual  
 234 quantified contribution of women to family income was 1,50,000 BDT, whereas annual family income was  
 235 5,00,000 BDT and total income was 6,50,000 BDT (Figure 1). Quantified contribution to family income of  
 236 highly educated respondent (unpaid) was 23%, whereas contribution by other members of the family was  
 237 77% (Figure 1).

238 **Table 4. Distribution of respondents according to quantification of contribution to**  
 239 **socioeconomic development in terms of earning money (yearly) supposed to be gained**  
 240 **by converting the spent time for performing different daily activities**

Categories	Score	Respondents (N=120)		Mean	SD(±)	Min.	Max.
		Number	Percentage				
Low earning money	<1,20,000	80	66.7				
Medium earning money	1,20,000-2,40,000	31	25.8	1,33,033	36730.10	1,00,000	2,60,000
Higher earning money	>2,40,000	9	7.5				
Total		120	100				

241 Source: Field survey, 2019

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**Figure 1. Contribution (%) of women in family income on different bases**

246 **3.5 Relationship between the selected characteristics of rural women and the extent of**  
 247 **women contribution in socioeconomic development**

248 This correlation coefficient had been calculated by using the Spearman's rank order correlation coefficient  
 249 ( $\rho$ ). The computed value of coefficient of correlation  $\rho$  (-0.066) showed a negative and non- significant  
 250 relationship between the age of the respondents and their contributions in terms of money to  
 251 socioeconomic development. The observed value of coefficient of correlation  $\rho$  (0.166) displayed a  
 252 positive and non-significant relationship between the family size of the respondents and their  
 253 contributions in socioeconomic development. The calculated value of coefficient of correlation  $\rho$  (0.358\*\*)   
 254 showed a positive and significant relationship between the annual family income of the respondents and  
 255 their contributions in socioeconomic development. The calculated value of coefficient of correlation  $\rho$   
 256 (0.451\*\*) showed a positive and significant relationship between involved in income generating activities  
 257 at how many days per month of the respondents and their contributions in socioeconomic development.  
 258 The calculated value of coefficient of correlation  $\rho$  (-0.268\*\*) showed a negative and significant  
 259 relationship between the problem faced by the respondents and their contributions to socioeconomic  
 260 development.

261 **Table 5. Relationships between the contributions to socioeconomic development (time**  
 262 **spent for performing different daily activities converted into money) by women and their**  
 263 **selected characteristics**

Dependent variable	Independent variable	Co-efficient of correlation “ρ”
Contribution in terms of money to socioeconomic development. (Time spent for performing different daily activities converted into money)	Age	-0.066 <sup>NS</sup>
	Educational qualification	0.214*
	Family size	0.166 <sup>NS</sup>
	Farm size	0.438**
	Annual family income	0.358**
	Organizational participation	0.364**
	Extension media contact	0.400**
	Training exposure	0.258**
	Poverty status	0.245**
	Number of performed daily activities	0.419**
	Time spent in performed daily activities	0.463**
	Involvement in income generating activities	0.451**
	Role in decision making for different activities	0.453**
	Problem faced	-0.268**

264 \*\* Significant at the 0.01 level, \* Significant at the 0.05 level, <sup>NS</sup> Non-significant

265

#### 266 4. DISCUSSION

267 Socioeconomic activities are gaining prominence in Bangladesh and in other developing countries in the  
 268 world. Rural women potentially contribute in social development and they might be good partners to  
 269 economic development of every society. Women are also engage in domestic chores such as home  
 270 management. This study actually focused on quantification of contribution made by rural women to  
 271 socioeconomic development which might be helpful for the researchers, planners, educators and other  
 272 agencies to uphold the women empowerment goal.

273 [7] found that after joining into different IGAs, the women became more triggered to earn money to help to  
 274 boost up their current situation into a more positive direction. Most of the respondents had higher  
 275 participation in income generating activities. Most of the women were engaged in seasonal vegetable  
 276 cultivation, nursery management, rice husking and selling, small business related to agriculture, milk cow  
 277 rearing, goat raising etc. [8] observed that women earned not only money but also respect by participating  
 278 in income generating activities. Majority of the women were engaged in homestead gardening, field crop  
 279 cultivation, postharvest activities, poultry rearing, goat rearing, cattle rearing, fish culture and collecting  
 280 fuel wood. Little number of women were engaged in services and labor selling. Women took major  
 281 decision about their children welfare, homestead gardening and daily diet but they had little decision  
 282 making power on economic issues. Women had little authority to take any economic decision. Authors  
 283 suggested that without economic solvency it was not possible to uplift their position both in family and  
 284 society.

285  
 286 [9] observed that more than three-fourth portion of the respondents belonged to low to moderate  
 287 categories of change in livelihood status. Formulation of gender specific and pragmatic program related  
 288 with IGAs viz. postharvest activities, cow fattening and milking, goat farming, backyard poultry rearing,  
 289 pisciculture, agriculture, horticulture, food processing, cane and bamboo works, silk reeling, handloom,  
 290 garment making, fishnet making, coir production, and handicrafts etc. which had enough potentiality to  
 291 increase their socioeconomic conditions leading towards improving livelihood status was necessary.

292

293 [10] stated that about 48% of rural women faced medium level of problem followed by 35% as low  
294 problem, 11% as high problem and 6% as very low problem in livestock rearing at Masundia Union under  
295 Pabna District. [11] found strong negative relationship between the education of male Garo youth and  
296 their participation in agricultural activities while [12] found it positively related with participation of school  
297 dropout teenage rural youth in selected agricultural activities.

298  
299 [13] found that women in households were economically active and had a great contribution in various  
300 activities related to homestead agricultural production. But these contributions were not duly considered  
301 in national income accounting because of faulty national statistical procedures. The socioeconomic  
302 backwardness and women illiteracy were also responsible for underestimation of their contribution. The  
303 areas of women contribution were identified as livestock production, duck and poultry production,  
304 horticultural crops poultry and livestock rearing and diseased management. The study also revealed that  
305 to increase women's participation in economic activities, their skills must be improved.  
306

## 307 **5. CONCLUSION**

308 Women have been playing many roles in the society and contributing continuously in the aspect of  
309 socioeconomic development where their involvement is considerable. In general, women have become  
310 important agents of socioeconomic development. Majority of the women (66.7%) was found in low  
311 earning money group followed by 25.5% in medium earning money group and 7.5% in higher earning  
312 money group. The average quantified contribution to family income made by rural women was 53.32%  
313 which had been ultimately used for better standards of living. Family is the smallest constituting unit of the  
314 society and the country as well. The contribution of women in family is mostly used for the improvement of  
315 child education, family health, and asset developments, and so on. Thus, it could be concluded that the  
316 contribution made by women in socioeconomic development is more than its men counterpart at rural  
317 level. It might be recommended that, adequate support should be provided to rural women to nurture this  
318 contribution by ensuring due acknowledgement and honor for them.

## 319 **COMPETING INTERESTS**

320 Authors have declared that no competing interests exist.

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