



**POVERTY SITUATION OF THE FARMERS IN THE SOUTHERN  
RURAL AREAS OF BANGLADESH: A CASE STUDY ON  
BARUIPARA, BAGERHAT**

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**Abstract:** The present study aims at assessing the poverty situation of the rural farmers and its extent in a particular area of a southern district of Bagerhat, Bangladesh. The poverty situation had been analyzed by using the facts of income and living standard considering the conditions of clothing, housing, education, occupation, availability of food, and medical facilities. Relevant data were collected from 50 households (from the total of 300) involved in crop and non- crop cultivation. The households, estimated monthly income of Tk. 2754 (referred to as "1\$ a day") was considered as extremely poor and Tk. 5508 (referred to as "2 \$ a day") as moderately poor. In the study area 24 percent households were found to be extremely poor and 40 percent were moderately poor. The pattern of income and expenditure of the households concerned revealed the facts that about 34 percent were poor in clothing, about 28 percent were illiterate, whereas 48 percent were in want of food. Regarding housing, 26 per cent houses were match box type house, and about 62 percent could afford to avoid of the indigenous medical facilities, 46 percent could go to public clinic during illness. The extent of poverty had been tried to be studied by drawing a poverty line using the cost of basic needs. Therefore, the poverty situation requires a comprehensive strategy in order to maintain sustainable resources as a means to reduce the existing condition of poverty.

**Keywords:** Poverty, farmer, income, living standard, basic needs, rural Bangladesh

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**Introduction:** Bangladesh is one of the most densely populated countries of the world. A rapid population growth rate increased the man- land ratio, leading to serious depletion of forest resources through over-exploitation. Furthermore, the land hungry people of the agricultural sector bringing more and more land under cultivation in order to feed the burgeoning population of Bangladesh (Anonymous, 1999). About 77 percent of its population lives in the villages, but almost 31 percent households have only one or less than one acre land to cultivate (BBS, 2003). Agriculture is the major means in the economy of Bangladesh as it contributes about 21% to the country's GDP (UNDP, 2006). Although there has been a gradual decline in the contribution of agriculture to GDP over the years, yet it will continue to play a vital role in national economy (Anonymous, 2001). But access to food, sanitation, pure drinking water, health care, education and social security are obviously inadequate for the farmers in the rural areas of Bangladesh. There are tremendous challenges faced by the people concerned due to inadequate infrastructure and service requirements of the growing population, as total public expenditure is US \$ 8, 19.1 million (UNDP, 2005). Bangladesh is a country with GDP of US\$ 56.6 billion and per capita income US \$ 406. The population below the poverty line (\$ 1 a day) during 1990- 2004 is 36% as compared to 82.8 % (\$ 2 a day) in 1990- 2004. Public expenditure on education was 1.5% of GDP in 1991 as compared to 2.2% during 2002- 2004 (UNDP, 2006).

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National rate of calorie intake is approximately 2120 kilo calorie. More than 27 percent of the households are getting below 1800 kilo calorie (BBS, 2003). The total expenditure on per capita health and population is only US \$12.2. Population with sustainable access to improved sanitation was 20% in 1990 as compared to 39% in 2004. Population without sustainable access to an improved water source is 26% (UNDP, 2006). Poverty reduction is the most popular theme of development dialogue in Bangladesh. According to Government statistics, poverty has declined in the 1990s, but still remains as one of the greatest challenges for the nation. In the study area 16.67% cultivators were in lower poverty line and only 22 percent farmers were apparently free from food deficit. About 38 percent farmers did not have any sanitary toilet facility, and 16 percent had no access to electricity. About 28.57 percent farmers who had completed only primary education were under the lower poverty line. All the landless people were poor in respect to housing. Regarding the possessions of prestigious household efforts only 6% used motor bike and 32 % was the owner of television. This precarious situation in the rural areas of Bangladesh constituted a great challenge. The present study had made an attempt to understand the real poverty situation of the rural farmers of a particular area of Bangladesh by using the indicators of their income and living standard.

### Materials and Methods

The present research is based on data collected through a field survey of 50 farm households involved in crop and non- crop cultivation and it had been carried out during January to March 2009 in the village *Baruipara* under *Rampal* upazila in the Bagerhat district of Bangladesh. A methodological technique to mention here is that the calculation of household incomes may be arrived at from two different standpoints, i. e., from the household product account and the household expenditure account. Expenditure data consistently provide a higher estimate of household income in comparison to product account data, the difference being accounted for due to expenditure saving activities or simple underreporting. The current review of poverty trends was made with reference to income calculated from the expenditure data. The households were classified into six land ownership categories: a) landless (having less than .05 acres of land), b) functionally landless (with .05- .49 acres), c) marginal land owner (between .50- 1.49 acres), d) small land owner (with 1.50-2.49 acres), e) medium land owner (2.50- 4.99 acres), and f) large land owners (5.0 acres or more) (Sen, 1995).

**Measurement of the variables:** The poverty situation of the farmers concerned had been measured in terms of their income and living standard. The households whose income was less than Tk. 2754 (1\$ per day) had been considered as below lower poverty line, and those with less than Tk.5508 (2\$ per day) had belonged to upper poverty line. In order to measure their living standard i. e., - access to food, education, clothing, housing, health and sanitation, high status items, were used as indicators. Clothing means whether each adult household member could be a minimum two pieces of *lungi* or *sharee* and whether each household member possessed a piece of winter clothing and a pair of shoes per year. Health and sanitation referred to access to different types of medicare and sanitary toilet. The houses were categorized into four types i) *jhupri* (match box type house, made of leaves), ii) single structure, iii) semi- durable (house structure with one plus rooms), and iv) durable (house structure with one plus rooms). Here the *jhupri* and single structure houses were considered as lower categories. Poverty situation was also assessed through the access to high status items, such as, *almirahs*, radio/cassette players, television, watch, bicycle, motorbike, and ornaments. The independent variables of the study were age, education, family size, farm size, duration of work/ day, annual income, occupation, health and sanitation, clothing, housing, which were measured by using numerical scale. The households were selected purposively. The data were collected through interview schedule using a pre- designed and pre-tested questionnaire.

## Results

**Demographic profile:** It is quite important to relate the household characteristics with poverty situation in order to know the differential factors of poverty. Demographic profile of the respondents has been presented in the Table 1. About half of the respondents (48%) were middle aged. Regarding family members, about half of the respondents (54%) belonged to medium family. Highest proportions (62%) of the respondents have had moderate working duration whereas 16% is low and 22% is high. Concerning organizational affiliation 72 % were not involved for getting any agricultural assistance. In terms of land ownership 26% were landless, whereas 20% small farmer and 8% large farmer.

Table 1. Demographic profile of the farmers

Variables	Measurement	Range	Categories	Households (%)
Age	years	20-70	young (up to 34)	22
			middle aged (35-54)	48
			old (>54)	30
			Mean- 46 SD- 12.73	
Family types	Rated score	2-8	Small (2-4)	24
			Medium (5-6)	54
			Large (7-8)	22
			Mean- 4.96 SD- 1.35	
Duration of work by day	No of hours	3-17	Low (3-7)	16
			Moderate (8-12)	62
			High (13- 17)	22
			Mean- 10.3	
Organizational affiliation	Rated score	0-12	No involvement (0)	72
			low participation (1-5)	22
			moderate participation (5-12)	6
Land ownership	Acres	0.1-10.0	landless (<0.05acre)	26
			functionally landless (.05-.49)	16
			marginal owner (.50-1.49)	14
			small owner (1.50-2.49)	20
			medium owner (2.50-4.99)	16
			large owner(>5.00acre)	8
			Mean- 1.71	

**Income and occupation:** In this study the poverty situation had been measured by the household income. The average income for sample household is found to be Tk. 4779.37. About 54% of the landless people earned about Tk 2700 compared to less than 29% marginal land owner. Study reveals that about 10% small land owners earned above Tk. 8101as compared to 50% large owner. So the per capita rural income is estimated at Tk.57348, which is equivalent to about US \$ 843 (Table 2).

Table 2. Household income (Considering expenditure)

Land ownership category	Monthly Income ( in taka)					Total
	0-2700	2701-5400	5401-8100	8101-10800	10801-13500	
Landless	53.85	38.46		7.69		26
Functionally landless	37.5	25	25	12.5		16
Marginal land owner	28.57	57.14	14.29			14
Small land owner	-	60	30	10		20
Medium land owner	-	37.5	25	2(25)	12.5	16
Large owner	-	-	25	50	25	08
Total No.	24	40	18	14	04	100

Mean= 4779.37

The volume of household income and its composition is presented in the Table 3.

Table 3. Main sources of income

Sources	Amount( in taka)	Sources	Amount( in taka)
Agriculture		Non- agriculture	
Crop cultivation	250000	Business	25000
Kitchen garden	100000	Service	90000
Non- crop agriculture	1500000	Transport and construction	20000
Agricultural wage	50000	Non- agricultural wage	78000
Other	20000	Remittances	1000000
Total income	1920000		1213000

Mean= 62660

The Table also indicates the sources of income from farm and non- farm households separately. Farm households are defined as those who cultivate some land. The estimated annual income for these households is about two million. Amount of Taka earned from non agricultural wage is more than that of agricultural wage.

Table 4. Incidence of poverty by occupation

Incidence of poverty	Principal Occupation of the respondents (in percent)						Total
	Cultivator	Agricultural wage	Non agricultural wage	Service	Business	Remittance	
Lower poverty line	16.67	50	33.33			-	12
Upper poverty line	16.66	38.89	22.22	11.11	11.11	-	18

Ara, M.R. 2010. Poverty situation of the farmers in the southern rural areas of Bangladesh: a case study on Baruipara, Bagerhat. *Khulna University Studies* 10 (1&2): 321-330

Table 4 suggested the fact that among different occupational groups only 16.67 percent of the population in the cultivator households were hard core poor and 18 percent were moderately poor. With respect to lower poverty line non- agricultural labor households are better off (33.33 per cent) as compared to agricultural labor households (50).

**Education:** Education of the head of the household is one of the determining factors of poverty which is presented in the Table 5.

In the lower poverty line there are more than 35 percent households whose head have no formal schooling as compared to only 16.67 percent for households' heads who have had completed secondary education. While those with above secondary level education, there is no household in lower poverty line.

Table 5. Incidence of poverty by education status of household's head

Education level of household's head	Respondents (in percent)			Total
	Lower poverty line	Upper poverty line	Non poor	
No formal schooling	35.71	35.71	28.57	28
Primary	28.57	33.33	38.1	42
Secondary	16.67	33.33	50	12
Above Secondary	-	44.44	55.55	18
Total No.	24	36	40	100

The study reveals that more than 76 percent landless people were always in deficit of food as compared to 25 percent medium land owners. About 30 percent of the small land owners occasionally face the problem of food scarcity where the percentage for large owner is 25 (Table 6).

Table 6. Status of food

Food availability	Land ownership category (in percent)						Total
	Landless	Functionally landless	Marginal owner	Small owner	Medium owner	Large owner	
Deficit	76.92	50	57.14	40	25	-	48
Occasionally deficit	15.38	25	28.57	30	50	25	30
Stable	7.69	25	14.29	20	12.5	50	16
Surplus	-	-	-	10	12.5	25	06

**Clothing:** Clothing is usually considered as the basic need after food. Table- 7 shows the difference in the availability of cloth. Information is provided here about two items: firstly, whether each adult household member owned a minimum 2 pieces of clothing (*lungi or sharee*) and; secondly, whether each household member owned a piece of winter clothing.

Table 7. Clothing status of the respondents

Status of Cloth (not owned)	Land ownership category (in percent)					
	Landless	Functionally landless	Marginal owner	Small owner	Medium owner	Large owner
Minimum of two pieces <i>lungi/sharee</i> in a year)	53.85	37.5	28.57	30	25	-
Winter clothing	69.23	25	14.28	10	-	-
Footwear	61.53	37.5	28.57	30	12.5	-

From the Table 7 it is observed that about 54 percent to less than 38 percent of adult rural population in the landless and functionally landless categories did not have a minimum two pieces of clothing compared to 30 percent to 25 percent in the small and medium land owning groups. There is no poor in clothing among the respondents of the large land owner. Deprivation is also more starkly seen when one considers the access to winter clothing for the respondents. The percentage among the landless not having access to winter clothing is 69.23. The corresponding figures for the marginal and small land owner are 14.28 and 10 percent respectively. Differences have also been observed between the land-poor and larger land owning groups in respect to footwear as well. Table shows that 61.53 percent of adult members in the landless group as not having any footwear in comparison to 12.5 percent in the medium land owning category.

**Housing:** The housing status is an indicator of living standard which suggests a very sensitive position in poverty scale. Table 8 shows that the share of the vulnerable segment of the respondents constitutes about 66 percent of the households. *Jgupri* category indicates an even more extreme level of distress. About 26 percent respondents are in this group. Table 8. Housing status of the sample households

Housing condition	Respondents (in percent)					
	Landless	Functionally landless	Marginal owner	Small owner	Medium owner	Large owner
<i>Jhupri</i>	61.54	50	-	-	12.5	-
Single structure	38.46	37.5	57.14	60	37.5	-
Semi-durable	-	12.5	42.86	30	37.5	75
Durable	-	-	-	10	12.5	25

Regarding sanitation and safe drinking water Table- 9 shows that 58 percent of the households appeared to have access to sanitary toilets. Rests of the households (42 percent) have no access to sanitary toilet and have to use open space which have quite adverse implication for primary health hazard. The figure for the landless category is limited to 38.46 %. Within the large land owning group, 75 percent have maintained sanitary toilet facilities, reflecting on awareness about sanitary problem regarding the problem of an inadequate resource- base. One health and hygiene indicator which has registered a significant improvement over time is the access to safe

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drinking facilities. This has positive impact on health and morbidity status of the poor. It is an encouraging sign for the farmers that all of them have had the access to drinking water facilities.

Table 9. Other housing facilities

Facilities	Land ownership category (in percent)					
	Landless	Functionally landless	Marginal owner	Small owner	Medium owner	Large owner
Safe drinking water facilities	100	100	100	100	100	100
Sanitary toilet	38.46	50	57.14	70	75	75
Electricity	61.54	75	85.71	90	100	100
Fuel wood	23.08	50	85.71	80	75	100

Among the sample households 41 % were under electrification. All of the medium and large owners had the access to electricity as compared to 75 percent functionally landless group. Table 9 represented the acute fuel wood crises. Only 23.08 percent of the landless people have had these facilities whereas marginal land owner is 85.71 percent and medium owner is 75 %. So the result shows the poverty situation of the farmers.

Some of the consumer items which are traditionally regarded as prestige items may be included in the category of secondary living standard indicators. These items include *almirah*, radio/cassette player, television, watch/clock, bicycle, motorbike and ornaments.

Table10. Prestige items

Land ownership	Ownership of respondents (in percent)						
	Almirahs	Radio/cassette player	Tv	Clock	Ornaments Gold/Silver	Motor bike	Bicycle
Landless	-	15.38	7.69	30.77	7.69	-	7.69
Functionally landless	25	37.5	25	50	37.5		25
Marginal owner	28.57	12.5	42.86	57.14	42.86	-	28.57
Small owner	40	20	40	90	30	10	30
Medium owner	62.5	37.5	37.5	100	75	12.5	25
Large land owner	100	50	75	100	100	25	25

**Diseases and Medical facilities:** On the basis of the reported cases, the following picture emerges in the Table11. First, influenza/ common cold represent about 88 percent of households' sickness. Second, gastro- intestinal diseases figure prominently amongst the reported sickness (about 72 percent of the total). Third, an alarming proportion of rural sickness falls under the category of infectious/ chronic type of diseases (about 44 percent, if the other types are taken into account).

Table 11. Disease pattern by land ownership categories (multi- response)

Type of diseases	Land ownership categories(in percent)				
	Landless and functionally landless	Marginal	Small	Medium	Large
Influenza/common cold	90.78	85.71	90	87.50	75
Gasrto- intestinal	76.19	71.43	80	62.50	50
Infections	47.62	42.86	30	25	50
Chronic	57.14	42.86	40	25	25

Table 12. Medical facilities (multi- response)

Types of medical facilities	Households (in percent)					
	Landless	Functionally landless	Marginal owner	Small owner	Medium owner	Large owner
Indigenous	92.31	62.5	42.86	50	50	50
Govt. clinic	61.5	50	71.43	20	25	50
Private clinic	-	12.5	28.57	40	25	50
Qualified private doctor	15.38	37.5	28.57	50	62.5	75
Total	13	8	7	10	8	4

### Discussion

Poverty has devastating effects on people's life especially on their physical psychological and economic aspects. Poor people suffer from physical pain which is usually due to intake of inadequate food and long hours of work; emotional pain stems from the daily humiliations of dependency and lack of power; and the moral pain comes from the fact that they were being forced to make choices such as to use limited funds to save the life of an ailing family member, or to use the same fund to feed children (Narayan, 1999). In Bangladesh the total population is 139.2 million and its growth rate is 1.7 percent per year (UNDP, 2006). Poverty situation also depends on the level of education. Education contributes to empowerment and access to remunerative employment. Gender equality in primary school enrolment has already been attained and most children take advantage of free primary education (UNDP, 2006). In the study area, 28% household's heads were illiterate and thus they remained under the poverty line. In case of secondary and higher education it is the income of the non- poor suggesting that higher education is more effective in raising rural incomes when it is combined with access to land and capital. Regarding health of the children under weight for age under age 5 (during 1996-2004) is 48%, health expenditure in public sector is 1.1 % of GDP and in private sector it is 2.3%. Traditional fuel consumption is 51.5 % of total energy requirements and per capita electricity consumption is 30 kilowatt per hour. About 54 % of the rural households did not have access to any toilet facilities and had to use open space (BBS, 1990). The most important factor behind the minimizing of rural income inequality is, however, the income coming from non- agricultural sources. The bottom 40 percent in the land ownership scale earns nearly 32 percent of the non-agricultural income, while the top 10 percent earns only 15 percent (Hossain, 1990). Land- people ratio is very low and natural resource endowment per capita is very limited. Per capita arable land is only 0.2 acres, land under water is 0.13 acres and forest land is only 0.04 acres. The rate of

overall literacy, including school- age children, is very high, i.e., about 60 percent, and health and sanitation services are very poor (Muhith, 1999). In the study area land ownership played a significant role to determine the poverty situation. The respondents who were functionally landless become poorer. Average households land was 1.71 in acres. The incidence of lower level of poverty was greater among agricultural labor households as compared to non- agricultural labor households. Crop cultivation depended on ownership of agricultural land, which accounted for nearly 8 percent of the total income for all rural household, and more than 13 percent in the case of farm household. An important implication of this finding is that although ownership of land is highly concentrated, land is no longer an overriding determinant of income inequality in rural Bangladesh. Kitchen gardening and non- crop agriculture which is carried out mostly in the homestead, accounted for about 51 percent of total income. About 48 percent of income comes from crop cultivation. This is because of shrimp cultivation in most of the agricultural land. More than 31 percent of the total income comes from remittances sent by migrant members living abroad. Households with ownership of real assets (such as, land), literate family members and those who had better access to financial institutions have had the capacity to earn more from these sources. There was a significant difference among various landowning groups with respect to housing status. The proportion of households having semi- durable houses varied from 12.5 percent in case of functionally landless groups in comparison to 75 percent of large landowning categories. There was no owner of durable houses among the landless and functionally landless groups. A good sign in the study area is the fact that there was no crisis for safe drinking water because there were sufficient deep tube wells. Water level was very supportive of deep tube well which were provided by Public Health Engineering Department and different NGO's. Valuable ornaments, such as, those made of gold and silver are important liquid assets with considerable potentials for risk insurance in times of crisis, but these are also regarded as socially prestigious items. The extremely limited access to liquid assets in the landless group made their livelihood very difficult in the face of sudden and unanticipated crisis. The problem of different types of diseases indicated the adverse affects of under- nutrition and deplorable conditions of primary health care. The overall poverty situation of the study area is presented in the Table 13.

Table 13. Overall poverty situation of the sample households

Indicators of poverty measurement	Land ownership (in percent)					Total
	Functionally landless	Marginal owner	Small landowner	Medium owner	Large owner	
Income Lower poverty line	50	28.57	-	-	-	24
upper poverty line	35	57.14	60	37.6	-	40
Food ( deficit)	70	57.14	40	25	-	48
Education (illiterate)	45	28.57	20	12.5	-	28
Clothing(not owning minimum two pieces of lungi or sharee)	50	28.57	30	25	-	34
Type of houses ( <i>jhupri</i> )	60	-	-	-	-	
No access to safe drinking water	-	-	-	-	-	
No access to electricity	30	12.5	10	-	-	
No access to sanitary toilet	55	37.5	30	12.5	25	18
No access to receive private Medicare	80	62.5	50	50	25	
Fuel wood crisis	65	12.5	20	25	-	36

The main source of income of the study area was shrimp cultivation and the farmers concerned faced tremendous problem to cultivate paddy because of water logging and salinity. But local farmers were deprived to get the actual price of shrimp due to different conditions and demands of local depot and Bangladesh Frozen Food Association. Cyclone *sidr* was an additional pressure for the farmers. In this situation farmer faced serious problems to adjust with their purchasing capacity. The study revealed that agricultural sources accounted for about 61.28 percent of the total household income. So there is high demand of different types of activities to be included in the mainstreaming poverty alleviation for the betterment of farmers in rural Bangladesh.

### Conclusion

On the basis of findings of the present study stated above it may be concluded that agriculture is still the main source of income of rural household. Relatively medium and large landowners are less poor. Though a satisfactory development become visible in regard to the access to safe drinking water facilities the crucial findings of this study focus on the problem of income and living standard. An increasing rate of extremely poor households has seen to be subsisted on an income below the poverty line. So there is a great need here to extend poverty alleviation program further not only for raising income of the poor but also stabilizing their existing living standard by taking into consideration of the variables like housing, health service, education, and worst availability of yield.

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