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Poverty alleviation through livestock and poultry raising in selected areas of Mymensingh district

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Abstract

The study was undertaken to investigate the contribution of livestock and poultry for income generation, employment opportunity and the alleviation of rural poverty. With the views in mind, 90 samples were collected through stratified random sampling from six villages of Mymensingh district. The study identified all categories household existed below income poverty line and the poverty gap were higher when livestock and poultry sources of income deducted. On the other hand, Cost of Basic Need (CBN) method, large and medium raisers existed above poverty line and marginal and small raisers existed below the expenditure poverty line. Benefit generated through raising livestock was highest in increase income and lowest for improve knowledge. Low price of livestock products, lack of improve breed and shortage of grazing land were identified as major constraints and possible steps have been suggested for overcome of that constraints with the help of local administration and livestock related development agencies.

Keywords: Poverty alleviation, Livestock & Poultry and Income generation

Introduction

Bangladesh is a country of abject poverty. In recent years a decline in poverty scenario is observed. For example, in 1999 national poverty was 46.2% and in 2004 the rate declined to 40.09 % (GOB, 2005). Livestock and poultry play an important role in respect of nutrition, employment and income generation for the poor and alleviation of poverty in agrarian economy of the country. Livestock provides products like milk, meat, egg and by-products like fuel, hides, wool etc., which are directly related to earning money.

Livestock also provides flexible reserve during economic stress and serves as a buffer against crop failure (living bank for farmers, saving account with offspring as interest); earns foreign exchange through exports of by-products (hides and skin, bone, etc.); and improves trade balance of payment (Sarker, 2003). Its contribution in national GDP is 2.91 per cent in the financial year of 2003-04, and this sub-sector generates 10.55 per cent of the total foreign exchange by exporting hides and skin (GOB, 2005). It has been also recognized as the potential sector for generating self-employment opportunities and income for the landless, unemployed youths and destitute women. Investment in the livestock sector might be considered as an important strategy for poverty alleviation (Rahman, 1999).

Research works related to livestock production and expansions such as Alam. J. (1995), Islam (1992), Saaddullah, (1995) and Rahman (1999) have been done. The present study will provide the significance of livestock raising for poverty alleviation in rural areas. The research will identify the contribution of livestock raising for income generation by self-employment of rural people.

Materials and Methods

To achieve the purpose of the study necessary data were collected from livestock and poultry raisers of Mymensingh district. Phulpur, Muktagacha and Trishal Upazilas were selected to collect data from January to April in 2004. Six villages were selected from three Upazilas and data were collected from 90 raisers out of 900 population. The four categories of raisers-Marginal, Small, Medium and Large were considered as four strata from which sample raisers were selected. These four strata were selected on the basis of value of livestock and poultry assets, on which household value of stock assets Tk. <5,000 was considered as marginal raisers, Tk.5,000 to Tk.12,000 considered as small raisers, Tk.12,001 to 20,000 considered as medium and above Tk.20,001 considered as large raisers. Poverty status of the sample was measured only Income Poverty Method and Cost of Basic Need Method (CBN). Poverty line was drawn US\$1 per day per person income for measuring to know the level of Income Poverty and spent Tk.636.48 per person per month sets for measuring Cost of Basic Need (CBN) Method poverty level. Per day per person income was converted into dollar by dividing with 58. The consumption of livestock and its products either own sources or purchases were converted in Taka. in such a way that the average price for per egg =Tk. 3, Milk per liter =Tk. 18, per chicken = Tk.80, and per Duck =Tk. 100. For this study data were collected mainly from primary sources and also depend on secondary sources. Simple statistical tools such as means, ratios, and percentages were applied to convert the data to have a meaningful form.

Results and Discussion

Family size and composition

Table 1 it is found that the average family size was 7.75, 6.11, 5.47 and 4.75 for large, medium, mall and marginal respectively. The percentage of male and female were 51.16 and 48.84 in the study area.

It is also shown in Table 1 that 50.16 per cent population of family members was in 15-55 age cohorts, and lowest population 10.59 per cent was in 55+ year's age group.

Table 1. Family size and composition of livestock and poultry raisers

Categories of raisers	Average family size	Average no. of family members						
		Male	Female	<10 years	11-15 years	16-55 years	55+ Years	All
Large	7.75	3.99 (51.48)	3.76 (48.52)	1.39 (17.98)	1.69 (21.86)	3.78 (48.90)	0.87 (11.25)	7.73 (100)
Medium	6.11	3.19 (52.21)	2.92 (47.79)	0.99 (14.84)	1.37 (20.54)	3.16 (47.38)	1.15 (17.24)	6.67 (100)
Small	5.47	2.75 (50.27)	2.72 (49.73)	1.35 (24.82)	0.91 (16.73)	2.83 (52.02)	0.35 (6.43)	5.44 (100)
Marginal	4.75	2.38 (50.11)	2.37 (49.89)	1.03 (21.77)	0.91 (19.24)	2.57 (54.33)	0.23 (4.86)	4.73 (100)
All average	6.02	3.08 (51.16)	2.94 (48.84)	1.19 (19.38)	1.22 (19.87)	3.08 (50.16)	0.65 (10.59)	6.14 (100)

Figures in the parentheses indicate the percentages of the average family members

Ownership pattern

It is observed from Table 2 that all households in the study area reared the livestock and poultry such as cow, goat, chicken and duck. The average number of cow, goat, chicken and duck per household for all categories were 2.70, 1.49, 9.85 and 2.48 respectively. From Table 2 found that the percentage of cow was highest for large raiser (53.71%) and lowest for marginal raiser (0.4%) and the percentage of goat was highest for marginal raiser (29.38%) and lowest for small raiser (15.52%). Again the percentage of chicken was highest for medium raiser (47.9%) and lowest for marginal raiser (12.19%) and the percentage of duck was highest for large raiser (42.50%) and lowest for small raiser (13.70%).

Table 2. Distribution of livestock and poultry holding by raiser category

Raisers category	Cow (no)	Goat (no)	Chicken (no)	Duck (no)
Large	6.00 (53.71)	1.57 (26.21)	9.64 (26.47)	4.28 (42.5)
Medium	3.09 (27.66)	1.73 (28.88)	17.45 (47.91)	2.45 (24.33)
Small	1.68 (15.04)	0.93 (15.52)	4.89 (13.43)	1.38 (13.70)
Marginal	0.4 (3.58)	1.76 (29.38)	4.44 (12.190)	1.96 (19.46)
All average	2.70 (16.34)	1.49 (9.02)	9.85 (59.62)	2.48 (15.01)

Figures in the parentheses indicate percentages

Contribution of livestock and poverty status

The amount of annual income from livestock sources were Tk. 19,010; Tk. 11,540; Tk. 6,860 and Tk. 2,801 for large, medium, small and marginal raiser respectively. By adding other sources of income the total income for large medium, small and marginal raiser were Tk. 64,460; Tk. 47,650; Tk. 25,310; and Tk. 18,531 annually per household respectively.

Table 3. Per day per person income of livestock and poultry raiser

Categories of Raiser	Sources of income (Tk.)			Per day per person income in Dollar		
	Live-stock & Poultry	Others	Total	Converted in dollar(\$)	Livestock income (\$)	Without livestock income(\$)
Large	19,010	45450	64,460	0.37	0.11	0.26
Medium	11540	36110	47,650	0.31	0.07	0.24
Small	6,860	18,450	25,310	0.25	0.08	0.18
Marginal	2,801	15,730	18531	0.18	0.03	0.15
All average	10,052	28935	38987.75	0.27	0.07	0.21

On the basis of World Bank (2003) definition (poverty line selected \$1 dollar per day per person income) all raisers were existed below poverty line but the distance from poverty line was highest for marginal raiser than followed by small medium and large (Table 1). If the livestock and poultry income was not added then the poverty situation was found more worsening.

Household Expenditure and Poverty Status: The Government of Bangladesh (GOB, 2002) set up a rural poverty line on Cost of Basic Needs method this was Tk 636.48 per person per month. On that basis the present study also estimated poverty level according to different category. The expenditure of per person per month was estimated by considering basic food items and very few non-food items (such as, clothing, health, and education). Large and medium raisers existed above and small and marginal livestock raisers were below rural poverty line was found in study areas.

Table 4. Expenditure per person per month and net change

Raiser	Average expenditure per person per month (Tk)				Total expenditure (Tk)	Poverty line (Tk)
	Food	clothing	Education	health		
Large	582.83 (89.56)	30.78 (4.73)	25.16 (3.86)	12.00 (1.84)	650.77	636.48
Medium	570.74 (89.21)	28.89 (4.51)	28.10 (4.39)	12.06 (1.88)	639.79	636.48
Small	560.60 (91.54)	16.64 (2.72)	20.11 (3.28)	15.05 (2.45)	612.40	636.48
Marginal	552.75 (93.99)	07.25 (1.23)	18.55 (3.15)	9.50 (1.61)	588.05	636.48
Average	566.73 (91.00)	20.89 (3.35)	22.98 (3.69)	12.15 (1.95)	622.75	636.48

Figure in parentheses indicate the percentages of expenditure

Marginal raisers were far away from below poverty line, which indicated worsening condition of them than other raisers. The medium and small raisers existed close to poverty line but the large raisers existed far above rural poverty line. It noticed that the expenditure for food item was highest for marginal raisers (93.99%) and lowest for medium raisers (89.21%). Estimated all average figures showed that expenditure for food, clothing, education and health was 91, 3.35, 3.35 and 1.95 per cent respectively.

Benefit generated through livestock and poultry keeping

The researcher collected data from respondents through "yes" and "no" questions. Following chart shows the respondents responses on benefits generated by raising livestock and poultry. Most of the respondents reported that raising livestock and poultry benefited them in a number of ways. All raiser categories the respondent reported that are shown on ascending order.

Table 5 Benefit generation through livestock and poultry raising

Types of benefit	Per cent (%)
Increase income	91.11
Afford medicine	87.77
Improve social status	86.66
Provide more food	81.11
Provide female employment	81.11
Better furniture	77.77
More clothes	75.55
More saving	72.22
New tube well	68.88
Afford education	54.44
Improve knowledge	48.88

Constraints and suggestions

Constraints and suggestions related to livestock and poultry raising in the study areas are shown in Table 6.

It is found from the Table 6, the major problems were low price of livestock products and followed by lack of improve breed, shortage of grazing land, lack of medicine and veterinary surgeon, lack of suitable marketing facilities, jointly high price of food and theft and also jointly lack of feed supply and lack of credit facilities and high interest rate.

Table 6. constraints and suggestions for raising livestock

Constraint	Per cent (%)	Suggestion	Per cent (%)
Lack of feed supply	46.75	Ensuring feed and fodder supply	87.23
High price of food	47.75	Credit facilities with low interest rate	83.86
Lack of suitable marketing facilities	49.50	Low input price and high output price	87.78
Lack of medicine and veterinary surgeon	53.25	Improve extension services	82.96
Lack of credit facilities and high interest rate	46.75	Minimum charge for veterinary doctor	83.80
Low price of livestock products	57.50	Government incentive	86.43
Shortage of grazing land	54.00	Improve breed facilities	76.30
Lack of improve breed	55.50	-	-
Theft.	47.75	-	-

Respondent suggested to overcome these constraints by ensuring feed and fodder supply, credit facilities with low interest rate, low input price and high output price, improve extension services, minimum charge for veterinary doctor, government incentive and improve breed facilities. They have given more emphasis on assurances of feed and fodder supply, output price of livestock products and government incentives.

Conclusion

It can be concluded from the study that livestock and poultry raising was a profitable area for the poor and small landholding groups, though it has some constraints. From above findings it is found that by raising livestock and poultry the rural people were able to improve their livelihood or reduced their poverty level. Livestock and poultry raising also ensured the rural people to take more food, better education, afford medicine, improve housing condition and social status. Finally the present study suggest the government to take initiative to alleviate rural poverty through developing livestock and poultry related facilities such as— ensured feed and fodder, veterinary services, improve breed, institutional credit facilities and reasonable output price.

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