

## Microfinance Programme for Food Security of Poor and Assetless People in Bangladesh

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### Abstract

Microfinance and Technical Support Project (MFTSP) was started in some regions of Bangladesh in 2004 with the financial support from IFAD. This study evaluated the role of MFTSP on food security status of the poor and assetless people in Bangladesh. This study was based on primary data collected from 500 farm households from three different regions with direct interview method. Middle aged farmers especially women were found to run livestock based enterprises. They were found to be successful in running their businesses with the help of support services from NGOs. It helped increase employment, income, consumption, and nutritional status of the poor people. Consumption of almost all food items increased substantially. Households' poverty reduced slightly due to the intervention from MFTSP. Both hard core and absolute poverty reduced relatively. Some private related businesses were developed in the supply chain to support the livestock based enterprises where increased number of labourers were employed. As a policy implication, in case of exogenous shocks government should provide financial supports to the farmers with easy terms and conditions to further setting up their livestock based enterprises. Marketing conditions should be improved to enable farm households to get fair prices for their livestock and products.

**Key words:** *Micro-finance programme, food security, poverty*

### Introduction

Bangladesh is the most densely-populated non-industrialised and agricultural country in the world. The geographical location and topographical features have exposed the country almost all kinds of natural and human induced disasters. The rural economy of Bangladesh is highly prone to natural disasters like flood, cyclone, river erosion and drought etc. As a result, a large number of people can not afford subsistence level of income for meeting their basic needs, thus living below the poverty line. Poverty and malnutrition are the usual phenomena for rural Bangladesh. The burden of poverty falls disproportionately

on women, who constitute about half of the total population. Logically, therefore, poverty alleviation and creation of rural employment are top priorities in the development agenda of the Government of Bangladesh (GOB) which has adopted a broad-based approach to poverty alleviation, emphasising macroeconomic stability, economic liberalisation, and support for a number of government agencies and non-government organisations (NGOs). Substantial progress has been made in implementing the micro-credit programme (MCP), and the scope for its efficient expansion is enormous.

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The rural people of Bangladesh are mostly poor and resource endowments are scarce. With a view to alleviating poverty, they need credit from the government and non-government organisations. In recent years, micro-credit, in its wider dimensions known as microfinance has become a much favoured intervention for poverty alleviation in the developing and least developed countries. This rapid expansion of microfinance drew attention from all important quarters— policymakers, academicians and development practitioners— each trying to grapple with the unfolding stream of issues and trying to shape the course of the social and economic dynamics initiated due to introduction of micro-credit. With a view to meeting the demand for fund for re-lending by the development partners especially NGO and Micro-Finance Institutions (MFIs), and due to an urge to coordinate the flow of such funds to appropriate use, the Palli Karma-Sahayak Foundation (Rural Employment Support Foundation) came into being in late 1990.

Microfinance programmes are highly suggested by policy makers and development partners to develop and strengthen the rural economy and to alleviate poverty. That is why, the number

of NGOs and MFIs dealing with microfinance increased significantly over the years. The volume of credit disbursement also increased several times over the years. But the impacts of these credits on the income, employment, consumption, nutrition and poverty alleviation in Bangladesh are still unknown. This study evaluated the Microfinance and Technical Support Project (MFTSP) funded by International Fund for Agricultural Development (IFAD) in three regions of Bangladesh on the dimensions of food security and poverty.

The specific objectives of the study were:

- (i) to estimate the differences of per household and per capita income and employment, food intake by household and per capita before and after intervention;
- (ii) to estimate the nutritional status of the people in two different situations;
- (iii) to identify the changes in professions and other types of livelihood of the people; and
- (iv) to implicate policies to increase income, food intake, nutritional status and livelihood of the people in the study area.

## **Materials and Methods**

This study was conducted in three areas of Bangladesh. These areas were namely Kishoregonj, Bhola and Barisal. A large number of rural poor people were living in these areas. Livestock based enterprises were particularly important to enhance access to food, nutrition and employment of rural people. Since livestock based enterprises were labour intensive, excess farm labour could be absorbed in these enterprises.

Primary data were collected for this study from the MFTSP area through direct interview method with the respondent farmers. A list of 5000 farm households was collected from three MFTSP areas and among them five hundred farm households were selected with the simple random sampling technique. The heads of the selected farm households were interviewed by trained enumerators for this study. Data were collected with the educated and

trained enumerators. The data collection process took from March to September in 2008. Data on different indicators in 2003 were collected from the borrowers profiles retained with the NGOs.

Many NGOs joined in the MFTSP in different areas of Bangladesh. PKSF has the list of them. But Grameen Jana Unnayan Sangstha (GJUS) and The Coastal Association for Social Transformation Trust (COAST TRUST) were found to work in Bhola, Hilful Fuzul Samaj Kallyan

Sangstha (HSKS), Integrated Community Development Association (ICDA) and Padakhap Manobik Unnayan Kendra (PMUK) were found to work in Barisal region. In Kishoregonj region Palli Bikash Kendra (PBK) (Rural Development Centre) and People's Oriented Programme Implementation (POPI) were working. All the NGOs mentioned above were performing excellent jobs in disbursing credit to the farmers for rearing livestock and poultry.

Table 1 Name of NGOs, their locations and sample size

Name of NGO	Location	Sample size (farm households)
Grameen Jana Unnayan Sangstha (GJUS)	Bhola	72
The Coastal Association for Social Transformation Trust (COAST TRUST)	Bhola	48
Hilful Fuzul Samaj Kallyan Sangstha (HSKS)	Barisal	100
Integrated Community Development Association (ICDA)	Barisal	74
Padakhap Manobik Unnayan Kendra (PMUK)	Barisal	40
Palli Bikash Kendra (PBK) (Rural Development Centre)	Kishoregonj	83
People's Oriented Programme Implementation (POPI)	Kishoregonj	83
Total		500

Both descriptive and functional analyses (linear and double-log regressions) were carried out. Some descriptive statistics were average, percentage, ratios, standard deviations, etc. Besides, t-test was conducted to show the significant differences between various averages. The MFTSP was started in 2004. Before the 2004 was considered to be as before situation and on or after 2004 were considered to be after situation. The data on different indicators were compared in two different time periods, before and after

situations. Specifically, data on various indicators at the end of 2003 and data on the same indicators at the end of 2007 were compared to show the impacts of MFTSP. Functional analysis is useful to estimate a minor change in dependent variable due to intervention by MFTSP. Functional analysis was performed to estimate the income and cost functions to identify factors influencing them. Both linear and double-log cost models were estimated. Household food security is defined as access by all people at all times to enough

food to ensure an active, healthy life (Maxwell *et al.*, 2000). A full definition of food security includes the related concepts of access, sufficiency, vulnerability, and sustainability (Maxwell and Frankenberger, 1992). Food sufficiency and security is achieved if adequate food (quantity, quality, safety, socio-cultural acceptability) is available and accessible for a satisfactory utilisation by all individuals at all times to live a healthy and happy life. In other words, achieving food security requires that the aggregate availability of physical supplies of food is sufficient, that

households have adequate access to those food supplies through their own production, through the market or through other sources, and that the utilisation of those food supplies is appropriate and socio-culturally acceptable to meet the specific dietary needs of individuals (Riely *et al.*, 1999).

Food security in this study was measured by measuring different indicators such as access to food, households' and per capita income, employment, per capita food consumption and calorie intake before and after the intervention from the MFTSP.

## Results and Discussion

To run a livestock based enterprise or to rear poultry and livestock, farmers need small area of land. This study revealed that farmers used on an average 8.01 decimals of land to rear their livestock based enterprises (Table 2). Farmers were found to rear different livestock based enterprises such as livestock farm for meat production, dairy farm, goat farm, broiler farm, layer farm, chick rearing, mini hatchery, etc. But the majorities were the dairy and broiler farmers. Some farmers were found to rear more than one enterprise.

Different NGOs in different areas disbursed different amounts of credit to the farmers. The amount of credit disbursed varied depending on the nature of enterprises and the farmers' relation with the NGOs. But every NGO disbursed Tk. 24671.29 to every farmer at the aggregate level (Table 3). Every NGO used to disburse credit several times in different periods to the same farmer and this average cumulative loan disbursement was observed to be Tk. 59202.11 at the aggregate level.

Farmers needed to invest their own money in their livestock based enterprises. One reason was that the amount of credit received from the NGOs was not enough to run their businesses. Another reason was that farmers had diverted some money received from the NGOs to other enterprises or used some money for other family purposes. Any way, average own investment was found to be Tk. 19449.83 at the aggregate level. The total household investment per farm was observed to be Tk. 44121.03 (Table 3). Large standard deviations associated with average values indicated that loan disbursement varied from farm to farm, even NGO to NGO in different areas.

Farmers used credit for different livestock based enterprises mentioned earlier. Farmers used credit mostly in livestock farms followed by poultry farms (broiler + layer + chick rearing), mini hatchery and goat farms, respectively. But due to the recurrence (cumulative) nature of expenditure the exact distribution of credit to different enterprises and activities was a bit complicated.

Table 2 Description of the livestock and poultry farm

Name of NGO	Land for farm (decimal)	Livestock farm for meat (No.)	Dairy farm (No.)	Goat farm (No.)	Poultry farm (No.)				
					(a) Broiler	(b) Layer	(c) Chick rearing	(d) Mini-hatchery	(e) Other
GJUS	1.96 (0.84)	10	19	9	24	12	3	-	18
COAST TRUST	3.61 (3.98)	7	17	5	19	-	1	5	2
HSKS	15.17 (25.93)	6	50		18	4	-	8	18
ICDA	10.30 (12.63)	8	22	1	27	6	1	-	10
PMUK	5.04 (10.54)	10	5	2	16	2	-	4	4
PBK	12.18 (18.73)	30	8	3	5	14	6	7	8
POPI	2.42 (3.08)	15	30	11	13	15	3	3	11
All average	8.01 (12.02)	13	24	4	17	8	2	4	11

Figures in the parentheses indicate standard deviations. Source: Field survey 2008.

Farmers were found to repay credit in instalments on weekly basis. The average total repayment in a year was observed to be Tk. 13437.70 whereas the cumulative total repayment was Tk. 34916.37 at the aggregate level (Table 4). About 97 percent farmers reported that they were able to increase income by taking loans from the NGOs and their average increased income was Tk. 12655.16 annually. That is, Tk. 24671.29 received on credit resulted in yearly increase of income at Tk. 12655.16 (Tables 3 & 4).

Incomes of farm households were increased significantly with the credits from the

NGOs. Rearing of poultry, livestock and running of related enterprises were found to be profitable. Farmers could easily generate income from livestock based enterprises and they did not need to wait a long time to get income from the above enterprises. But at the initial stage immediately after receiving the credit from NGOs, farmers had to face problem to repay the first instalment since they were not able to generate income within a week. Farmers also reported that they had sometimes problem to repay loan as their enterprise especially chicken had been attacked by bird flu, which caused a huge loss to them.

Table 3 Money investment in livestock based enterprises by farms households.

Name of NGO	Amount of loan taken from NGO (Tk.) (present loan)	Own money (Tk.)	Total households investment (Tk.)	Cumulative loan (Tk.)
GJUS	24071.43 (33913.07)	22241.38 (35492.11)	46312.81 (34702.59)	68844.99 (44675.76)
COAST TRUST	19340.43 (17407.24)	30521.28 (43059.61)	49860.71 (30233.43)	61978.43 (51067.43)
HSKS	37673.67 (30147.09)	19854.43 (11858.18)	57528.10 (21002.64)	59763.77 (45576.64)
ICDA	29986.84 (24473.93)	33885.71 (35432.95)	63872.55 (29953.44)	57863.49 (55680.93)
PMUK	20392.86 (10870.75)	28571.43 (84452.23)	48964.29 (47661.49)	62373.99 (23954.68)
PBK	17681.16 (9953.56)	5170.50 (6390.51)	22851.66 (8172.04)	55168.88 (49071.55)
POPI	16921.88 (15810.69)	7150.87 (9170.77)	24072.75 (12490.73)	52252.71 (41743.81)
All average	24671.29 (21352.66)	19449.83 (26199.65)	44121.03 (23776.16)	59202.11 (45683.61)

Figures in the parentheses indicate standard deviations. Source: Field survey 2008.

Table 4 Repayment of loan

Name of NGO	Loan repayment (present) (Tk.)	Total loan repayment (cumulative) (Tk.)	Whether income increased due to loan (Yes/No)	Yearly increased income due to loan (Tk.)
GJUS	5528.57 (10334.58)	44644.30 (39655.96)	Yes (96%)	14331.43 (9150.20)
COAST TRUST	9115.43 (10723.66)	41525.53 (41942.07)	Yes (100%)	11101.70 (9411.85)
HSKS	17790.00 (10935.34)	28126.44 (18918.92)	Yes (99%)	13797.15 (16296.83)
ICDA	27417.19 (23706.15)	37980.00 (27036.30)	Yes (93%)	13128.77 (18132.22)
PMUK	17883.68 (6687.71)	40333.33 (14742.23)	Yes (90%)	13964.23 (40290.13)
PBK	9991.90 (9429.42)	35205.26 (32856.16)	Yes (96%)	10822.54 (1047.18)
POPI	6394.05 (11103.53)	25205.23 (17554.07)	Yes (95%)	11503.03 (18738.66)
All average	13437.70 (12156.72)	34916.37 (27069.53)	Yes (97%)	12655.16 (14671.76)

Figures in the parentheses indicate standard deviations. Source: Field survey 2008.

**Total income from selling of livestock based enterprises**

Total per farm and per capita income from livestock based enterprises was respectively Tk. 13046.46 and Tk. 2480.32 before situation but after situation per farm and per capita income rose to Tk. 37863.43 and Tk. 7198.37 respectively (Table 5). Thus, income from livestock and poultry enterprises after situation was about three times than that of before situation. If we consider 6 percent of inflation, we can assert that nominal income from livestock

based enterprises was increased by 190 percent whereas the real income was increased by 130 percent after the situation. Table 6 revealed that after situation yearly households' income was influenced by livestock income, age of farmer, experience of farming, land and education. Increased households' income caused increase of yearly households' expenditure. After situation, yearly households' expenditure was significantly influenced by cost for property purchase, cost for livestock purchase and family food cost.

Table 5 Yearly households' income from selling livestock and poultry

Name of the NGO	Households income before situation	Per capita income before situation	Households income after situation	Per capita income after situation
GJUS	5708.50 (12757.34)	1089.41 (3383.91)	39359.94 (40114.72)	75511.44 (10640.51)
COAST TRUST	9398.62 (8658.25)	1875.97 (2231.51)	45852.73 (25386.27)	9152.24 (6542.85)
HSKS	16118.52 (11976.61)	3001.59 (2510.82)	48410.30 (42326.47)	9014.95 (8873.47)
ICDA	18980.31 (12365.75)	3489.03 (3099.19)	35637.56 (19776.81)	6551.02 (4956.59)
PMUK	10288.21 (895.66)	1877.41 (223.36)	27836.68 (22972.55)	5079.69 (5728.82)
PBK	14896.85 (12968.75)	2944.04 (4197.01)	35311.14 (20976.65)	6978.49 (6788.56)
POPI	12008.73 (9764.55)	2300.52 (2646.22)	28606.84 (13764.91)	5480.24 (3730.33)
All average	13046.46 (10739.08)	2480.32 (2746.57)	37863.43 (27210.77)	7198.37 (6959.28)

Figures in the parentheses indicate standard deviations. Source: Field survey 2008.

Table 6 Estimates of income function of farm households for all NGOs

Variables	Estimated coefficients (Std. errors)	t- values	Variables	Estimated coefficients (Std. errors)	t- values
Intercept	12265.443** (4536.339)	2.70**	Intercept	10.961 (11.559)	0.95
Livestock income	1.432** (0.177)	8.09**	ln(Livestock income)	0.641** (0.045)	14.24**
Land area	240.652** (65.421)	3.68**	ln(Land area)	0.199** (0.059)	3.37**
Age	0.136* (0.064)	2.13*	ln(Age)	0.089* (0.039)	2.28*
Education	0.216 (0.119)	1.82	ln(Education)	0.165 (0.077)	2.14*
Experience (dummy)	0.992* (0.461)	2.15*	Experience (dummy)	0.524 (0.223)	2.35*
$\bar{R}^2$	0.94		$\bar{R}^2$	0.88	
F-value	146.48**		F-value	69.28**	

\*\* and \* indicate significance at 0.01 and 0.05 probability level, respectively.

### Labour utilisation for livestock and poultry farms

Before joining in MFTSP farmers did not use enough labour in their livestock based enterprises. It was because the volume of trade was small and farmers did not produce livestock and poultry commercially. But after joining in MFTSP as they took loan from NGOs and since they had to repay loan from the sale proceeds, they developed their commercial entrepreneurship.

Consequently, labour use in livestock based enterprises increased significantly as activities increased manifolds in after situation. Average labour employment per farm was estimated to be 0.55 person and monthly salary of labour was Tk. 1507.01 before situation. That is, monthly salary per labour was Tk. 2740.02 before situation. But after situation, amount of labour use per farm increased to 1 and monthly salary was Taka 3356.04 (Table 7).



Table 7 Employment of labour in the livestock and poultry farm

Name of NGO	Before joining in MFTSP		After joining in MFTSP	
	No.	Monthly salary (Tk.)	No.	Monthly salary (Tk.)
GJUS	0.47 (0.50)	1350.00 (1487.12)	0.70 (0.49)	2914.29 (2285.81)
COAST TRUST	0.61 (0.92)	1500.71 (1372.86)	1.02 (7.01)	3165.07 (2172.75)
HSKS	0.62 (1.07)	2046.00 (1334.74)	0.95 (1.76)	3671.09 (2689.66)
ICDA	0.77 (0.68)	2223.87 (1121.65)	0.97 (1.29)	3264.69 (1291.77)
PMUK	0.48 (0.71)	1440.00 (872.36)	1.01 (1.36)	3133.74 (1136.37)
PBK	0.33 (0.84)	825.00 (776.59)	1.00 (1.40)	2968.71 (1314.92)
POPI	0.57 (0.91)	1072.64 (675.91)	1.36 (2.09)	4046.00 (2269.71)
All average	0.55 (0.82)	1507.01 (1089.80)	1.00 (1.97)	3356.04 (1952.81)

Figures in the parentheses indicate standard deviations. Source: Field survey 2008.

#### **Involvement of manpower for buying and selling of feed and livestock products and their incomes**

Some private related businesses were developed in the supply chain to support the livestock based enterprises. The people working in these businesses produced and supplied feed to the livestock and poultry farms and bought the livestock and poultry, and their products from the farm households. They sold these products to the ultimate consumers and earned profit from them. These types of businesses were also visible before the situation but they were fewer in number. But after the situation, number of these business establishments increased significantly to keep pace with increased demand for livestock and poultry feed and selling of their products. Manpower involvement before the situation was observed to be 0.51 and monthly

income was Taka 1508.32. That is, monthly income per person was Taka 2957.49. But after the situation, manpower involvement per farm was increased to 1.95 and their monthly income was Taka 6852.33. That is, monthly income per person was Taka 3514.02 (Table 8).

#### **Per capita food consumption, calorie intake, poverty and malnutrition**

Food consumption per capita per day was increased significantly ( $t = 5.05^{**}$ ) after the situation. Food consumption per capita per day was estimated to be 876 grams in before situation whereas after situation it was 1041 grams. This increase of food intake was assumed to be contributed by the intervention from MFTSP (Table 9). Table 10 reveals item wise food consumption per capita per day (grams) by households.

Table 8 Number and monthly income of people engaged in buying and selling feed and product.

Name of NGO	Before joining in MFTSP		After joining in MFTSP	
	No.	Monthly income (Taka)	No.	Monthly income (Taka)
GJUS	0.26 (1.09)	607.29 (591.03)	1.07 (0.71)	4270.00 (4747.31)
COAST TRUST	0.31 (1.27)	770.66 (464.71)	2.17 (1.37)	8689.24 (5805.95)
HSKS	0.41 (0.94)	1236.67 (364.75)	2.43 (2.01)	7215.89 (1230.50)
ICDA	0.37 (0.67)	1314.61 (342.59)	2.01 (1.73)	8488.52 (12450.59)
PMUK	0.44 (0.69)	1668.75 (242.68)	1.74 (2.21)	5525.65 (842.97)
PBK	0.75 (0.99)	2277.64 (876.15)	2.24 (4.69)	7840.00 (969.57)
POPI	0.88 (0.78)	2369.88 (1072.55)	1.78 (4.09)	5785.00 (1120.91)
All average	0.51 (0.92)	1508.32 (596.27)	1.95 (2.53)	6852.33 (3744.23)

Figures in the parentheses indicate standard deviations, 1 Euro

Table 9 NGO wise food intake per capita per day by farm household (grams).

Name of NGO	Before joining in MFTSP	After joining in MFTSP
GJUS	1099	1220
COAST TRUST	1193	1395
HSKS	749	833
ICDA	732	1077
PMUK	752	830
PBK	949	1041
POPI	765	999
All average	876	1041

Source: Field survey 2008.

Table 10 Per capita per day consumption of different food items for all NGOs (grams).

Food items	Before joining in MFTSP	After joining in MFTSP
Rice	430	472
Wheat	11	14
Maize	-	-
Potato	90	115
Vegetables	108	138
Lentil	18	21
Mustard oil	5	6
Soybean oil	16	19
Meat	35	50
Zinger	4	5

Table 10 (Contd.)

Food items	Before joining in MFTSP	After joining in MFTSP
Egg	9	19
Fish	41	50
Onion	21	29
Garlic	7	8
Chilli	10	9
Fruits	14	17
Sugar	12	15
Milk	45	54
All average	876	1041

Source: Field Survey 2008.

**Calorie intake by households**

Calorie intake per capita per day was estimated to 1920.70 Kilo calorie before the situation. But after the situation it raised to 2193.90 kilo calorie (Table 11). It was observed that calorie intake increased significantly ( $t = 11.04^{**}$ ). Food item wise per capita per day calorie intake are presented in Table 12.

Table 11 Calorie intake by farm household (k.cal./day/capita) for all NGOs.

Name of NGO	Before joining in MFTSP	After joining in MFTSP
GJUS	2026.00	2291.00
COAST TRUST	2126.40	2530.80
HSKS	1912.70	2150.90
ICDA	1828.90	2186.00
PMUK	1844.50	2034.80
PBK	1874.80	2130.60
POPI	1885.60	2111.20
All average	1920.70	2193.90

Source: Field survey 2008.

Table 12 Calorie intake per capita per day from different food items by farm households for all NGOs (k.cal.)

Food items	Before joining in MFTSP	After joining in MFTSP
Rice	1397.50	1534.00
Wheat	35.60	45.40
Maize	-	-
Potato	82.80	105.80
Vegetables	38.90	49.70
Lentil	59.20	69.10
Mustard oil	1.70	2.00
Soybean oil	68.30	81.10
Meat	47.60	68.00
Zinger	3.60	4.60
Egg	15.80	33.40
Fish	43.50	53.00
Onion	9.80	13.50
Garlic	9.60	11.00
Chilli	23.70	21.30
Fruits	8.70	10.50
Sugar	44.80	56.00
Milk	29.70	35.60
All average	1920.70	2193.90

Source: Field survey 2008.

**Poverty and malnutrition of farm households**

There are several measures of poverty, all of them belonging to the so-called Foster-Greer Thorbecke (FGT) poverty indices (Foster *et al.* 1984). The Direct Calore Intake (DCI) is one of the measures of poverty. The threshold per capita per day calorie intake is 2122 k.cal. A person, whose daily calorie intake is less than 2122 k.cal. is considered to be in the 'Absolute Poverty'. Similarly, a person having daily calorie intake less than 1805 k.cal. is considered to be in the 'Hard Core Poverty'. The hard core poverty observed in the study was 18 percent after the situation (Table 13). But before the situation the hard core

Table 13 Incidence of hard core poverty by direct calorie intake (DCI) method

Name of NGO	Head count ratio (%)	
	Before	After
GJUS	16	12
COAST TRUST	18	16
HSKS	22	19
ICDA	23	19
PMUK	25	21
PBK	22	19
POPI	22	20
All average	21	18

Source: Field survey 2008.

poverty was 21 percent, which showed that poverty condition was slightly improved after the situation. The hard core poverty measurement had similarity with the PMS (2004), HIES (2005), Rahman and Schmitz (2007). PMS (2004) showed that the hard core poverty at the national, urban and rural

levels were respectively 18.7, 20.8 and 18.2 percent in 2004. The absolute poverty observed in the study before and after situations were respectively 35 percent and 34 percent showing a slight improvement in after situation (Table 14), which was also similar with the PMS (2004), HIES (2005), and Rahman and Schmitz (2007).

Table 14 Incidence of absolute poverty by direct calorie intake (DCI) method

Name of NGO	Head count ratio (%)	
	Before	After
GJUS	25	23
COAST TRUST	26	25
HSKS	35	35
ICDA	36	35
PMUK	42	40
PBK	38	38
POPI	40	39
All average	35	34

Source: Field survey 2008.

### Conclusion and Policy Implication

Livestock based enterprises ensured more output and income to the farm households after the intervention from MFTSP. Small investment in the livestock based enterprises entailed more and rapid income to the households. They increased access to food, nutrition, and reduced poverty. It helped increase employment, consumption, and nutritional status of members of farm households.

Livestock based enterprises emerged as a major contributor of income to the farm households. This sector should be further strengthened by eliminating problems like

exogenous shocks arising from unprecedented disease attack and natural calamities. In case of exogenous shocks government should provide financial supports to the farmers with easy terms and conditions to further setting up their livestock based enterprises. This type of governmental support would make the livestock based enterprises sustainable. Marketing conditions should be improved to enable farm households to get fair prices for their livestock, poultry and also for their products.

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