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## Impact of PKSF Cattle Fattening Program on Income, Employment and Livelihood of Participating Farmers in Some Areas of Brahmanbaria and Kishoregonj District

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### Abstract

This study examines the impact of micro credit of PKSF on cattle fattening farmers in Brahmanbaria and Kishoregonj district. With the views in mind, 60 project participating farmers were selected purposively from the study area. It is evident that average family size was about 5 persons and about 50% of the project participating farmers have no formal education or can sign only irrespective of areas and farm sizes. The average annual income of landless project participating farmers in Brahmanbaria district increased by 371% while for Kishoregonj it was 258%. The increased income of the small farmers was 160% in Kishoregonj. In Brahmanbaria district, after joining PKSF project the average income from non-agricultural sources increased respectively 58 and 56% for the landless and small farmers and 48 and 46% in Kishoregonj. Total activities of the participating farmers in Brahmanbaria increased by 21.87% for landless and 29.25% for small farmers after participating the PKSF project. The activities of project participating both for landless and small farmers in Kishoregonj district were 24.71 and 26.46. In Brahmanbaria district, value of asset possession of landless farmer increased 120% and 92.74% for small farmers. The asset possession of the landless and small farmer increased by 109.76 and 62.75% respectively after participating the PKSF project. Finally the study concludes that PKSF credit on cattle fattening had positively influenced on income, employment and asset possessions in the project area.

**Keywords:** *Income generation, employment creation, asset possession*

### Introduction

Bangladesh is an agricultural country and economy of this country depends mainly on agriculture. Livestock being one of the four components (crop, livestock, fisheries and forestry) of agriculture plays a vital role in

national economy. There are about 23.96 million heads of cattle in Bangladesh (FAO, 2003). The contribution of livestock to GDP in the year 2003-2004 accounted for 2.91 and the growth rate of the subsector was about

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4.98% (BBS, 2004). The number of cattle population in Bangladesh ranked 2<sup>nd</sup> among the SAARC countries and 7<sup>th</sup> among the Asian countries (Alam, 1995). In Bangladesh, the majority (about 80%) of population are living in rural areas. About 43% of the rural people are living below the poverty level and most of them are landless household (BBS, 2004). Until and unless these farmers are induced to take-up subsidiary occupation they will not be able to improve their economic condition. Cattle fattening for beef production has been an important agri-business for small farmers in Bangladesh. The PKSF (Palli Karma Sahayak Foundation) has been established for helping the poor, the landless and

assetless people so that they get access to resources for productive purpose like employment generation and for enhancing the quality of their life. There are approximately 230 partner organizations (POs) to exchange views to strengthen its microcredit programmes. They advance loans to small and landless farmers from Tk. 5000 to Tk. 10,000 for cattle fattening. The farmers used to fatten cattle for 6-12 months. All the project participating farmers were women and their repayment of credit was near about hundred percent. Very few researches have been done in Bangladesh on this aspect. Therefore, the present study were undertaken to assess the impact of PKSF supported credit on cattle fattening farmers.

### **Methodology**

The study was initiated to assess the impact of PKSF supported credit on cattle fattening farmers in Brahmanbaria and Kishoregonj district. Two villages namely Shadirchar and Vagolpur of Bajitpur Upazila and village Boromoshua of Kotiadia Upzila under Kishoregonj district were selected. Two villages namely Bhadrachha and Narayanpur of Nabinagar Upazila under Brahmanbaria district were selected in this study. The total

sample size was 60 project participating farmers from two districts. Finally, from each district data were collected from 15 landless farmers and 15 small farmers of the selected villages. Interview schedule was used to collect primary information. The data collection process took place during February to April, 2006. The collected data were analysed as per objective of the study.

### **Findings and Discussion**

#### **Socioeconomic profile of the participating farmers**

Table 1 shows that the average size of the family was found to be 5 and 4.6 persons for landless and small farmer in Brahmanbaria district. In Kishoregonj district average size of the family was found to be 5.4 and 4.9 persons for landless and small farmers

respectively. The dependency ratios were 2.67 and 2.65 for landless and small farmers in Brahmanbaria district respectively, while 2.89 and 2.74 were counted for landless and small farmers in Kishoregonj district. In all the study area about 60% family members were under active age group between 19 and 57.

Table 1. Size and composition of PKSF project participating farmers families in the selected Areas

Age	Number of family member			
	Brahmanbaria district		Kishoregonj district	
	Landless farmer	Small farmer	Landless farmer	Small farmer
Up to 18 years	24 (32.00)	22 (31.88)	26 (32.09)	24 (32.44)
19-57 years	45 (60.00)	42 (60.86)	48 (59.25)	46 (62.16)
Above 57 years	6 (8.00)	5 (7.24)	7 (8.64)	4 (5.40)
All ages	75 (100)	69 (100)	81 (100)	74 (100)
Average family size	5.0	4.6	5.4	4.9
Dependency ratio	2.67	2.65	2.89	2.74

Note: Figures in the parentheses indicate percentage

Table 2 reveals that 20% and 13% of the total respondents were illiterate having no formal education in Brahmanbaria district for landless and small farmer. In Kishoregonj district about 7% of the total respondents were illiterate both for landless and small farmer. The respondents of the landless and small farmers in Brahmanbaria district who could be able to sign only, primary, secondary level, and above secondary levels

of education to the extent of 40, 26, 13, 0 and 13, 45, 27, 13% respectively. On the other hand, the respondents of the project participating landless and small farmers in Kishoregonj district, who could be able to sign only, primary, secondary level, and above secondary level of education to the extent of 7, 53, 27, 13 and 7, 40, 33, 20% respectively. PKSF project participating farmers are less illiterate than the national illiterate level.

Table 2. Literacy level of the participants in the PKSF beef cattle fattening programme

Literacy level	Number of PKSF project participating members			
	Brahmanbaria district		Kishoregonj district	
	Landless farmer	Small farmer	Landless farmer	Small farmer
Illiterate	3 (20.00)	2 (13.33)	1 (6.67)	1 (6.67)
Capable to sign only	6 (40.00)	7 (46.67)	8 (53.33)	6 (40)
Up to primary	4 (26.67)	4 (26.67)	4 (26.67)	5 (33.33)
Up to secondary	2 (13.33)	-	2 (13.33)	-
Above secondary	-	2 (13.33)	-	3 (20)
Total	15 (100)	15 (100)	15 (100)	15 (100)

Note: Figure in the parentheses indicate percentage

It is observed from Table 3 that all households in the study area are rear the livestock and poultry such as cattle, goat, chicken and duck. The average number of cattle, goat, chicken and duck per household for small and landless farmers were 2.61, 1.02, 7.19 and 5.33 respectively. From table 3, it is revealed that the number of cattle was the highest for small farmers in Brahmanbaria district and lowest for landless

farmers in Kishoregonj district and the number of goat was the highest for small farmers in Brahmanbaria district and lowest for landless farmers in Kishoregonj district. Again the number of chicken was the highest for small farmers in Brahmanbaria district and lowest for landless farmer in Kishoregonj district and the number of duck was the highest for small farmers in Kishoregonj district and lowest for landless

farmers in Brahmanbaria district. The small project participating farmers keep more

livestock and poultry than the landless farmer irrespective of areas.

Table 3. Distribution of livestock and poultry holding by the project participating farmers

District	Farmer category	Cattle (no.)	Goat (no.)	Chicken (no.)	Duck (no.)
Brahmanbaria	Landless farmer	2.13	0.92	5.43	3.21
	Small farmer	3.45	1.22	9.21	6.77
Kishoregonj	Landless farmer	1.92	0.85	5.17	3.89
	Small farmer	2.97	1.10	8.95	7.35
All average		2.61	1.02	7.19	5.33

### **Impact of PKSF credit on income, employment & asset possession**

This section aims at focusing the impact of PKSF support on beef cattle fattening upon the project participating landless and small farmers on their income, employment and asset making between before and after support situation i.e., prior to 2004 as before support situation and 2005 as after support situation. The PKSF supported them on this activity through the local NGOs, CCDA (Centre for Community Development Assistance) and POPI (People's Oriented Programme Implimentation) working at Nabinagar upazila under Brahmanbaria district and Kotiadi and Bajitpur upazila under Kishoregonj district.

Based on available data, average changes per family on income generation, employment and asset making position of small and landless project participating farmers before and after loan periods were assessed.

#### ***Changes in annual income***

The average annual income of the project participating farmers in Brahmanbaria and Kishoregonj district, before and after joining PKSF project is shown in Table 4. It reveals that the average annual income of landless farmer in Brahmanbaria district, after joining PKSF project was estimated at Tk. 25,243.32 and only Tk. 5,353.77 before joining the

project signifying 371% increase of their income. The average annual income per small farmer after involving project was estimated at Tk. 31,119.98 from Tk. 8,002.08 before joining PKSF implying about 288% increase for small farmers. The average annual income per landless household was estimated at Tk. 24,937.11 in Kishoregonj. Before joining the PKSF, the average annual income was Tk. 6,955.22. The average annual income increased by 258% than. The average annual income per small household increased to Tk. 34,502.29. The income was Tk. 13,251.16 before joining PKSF project. The increase of income after joining was about 160%. After participating the project, the annual income increased from agricultural sources irrespective of areas and farm sizes.

The income earned from non-agricultural sources of project participating landless farmers and small farmers in Brahmanbaria and Kishoregonj district are calculated. After joining PKSF project, the average income from non-agricultural sources increased for both the landless and small farmers. It reveals that the average income from non-agricultural sources increased for both the participating landless farmers (about 58%) and small farmers (56%) in Brahmanbaria district. In Kishoregonj district, after joining PKSF project, the average income from non-agricultural sources increased for both the

landless (about 48%) and small farmers (46%). The project participating farmers increased their annual income from non-agricultural sources too.

In Brahmanbaria district, before joining the project, the total annual income from different sources of project participating landless farmers was Tk. 33,146.76 which increased to Tk. 69,368.31 after joining the project, indicating 109% rise in income per family. Before joining the project, the annual income from different sources of project participating small farmers was Tk. 40,885.4 which increased to Tk. 82,571.63, indicating

the annual income rise by 101.95%, after joining PKSF project on cattle fattening. Before joining the project, the annual income from different sources of landless farmers in Kishoregonj district was Tk. 32,718.73 which increased to Tk. 63,228.75, indicating about 93% rise in a year. The average annual income per family of small farmers was Tk. 56058.01 before joining the PKSF which increased to Tk. 97,252.7 indicating about 73% rise in annual income. After joining the project, the total annual income substantially increased both for the landless and small farmers irrespective of areas.

Table 4. Per family total annual income in Brahmanbaria and Kishoregonj district

District	Sources	Income in Taka							
		Landless farmer				Landless farmer			
		After	Before	Net change	Change (%)	After	Before	Net change	Change (%)
Brahmanbaria	Agricultural	25243.32	5353.77	19889.55	371.50	31119.98	8002.08	23117.9	288.89
	Non-agricultural	44124.99	27794.99	16330	58.75	51451.65	32883.32	18568.33	56.46
	Total	69368.31	33148.76	36219.55	109.26	82571.63	40885.4	41686.23	101.95
Kishoregonj	Agricultural	24937.11	6955.22	17981.89	258.53	34502.29	13251.16	21251.13	160.37
	Non-agricultural	38291.64	25763.51	12528.13	48.62	62750.41	42806.85	19943.56	46.58
	Total	63228.75	32718.73	30510.02	93.24	97252.7	56058.01	41194.69	73.48

**Changes in employment generation**

Changes in employment generation for the landless and small participating farmers after joining PKSF project in Brahmanbaria and Kishoregonj district have been shown in Table 5. Table reveals that employment generation of project participating landless and small farmers increased in almost every activity for both districts. In Brahmanbaria district, total activities of the project participating landless farmers increased by 21.87% and for small farmers increased by 29.25%. Table 5 also reveals that in Kishoregonj district, the employment

opportunities have been created in almost every activity. Total activities of project participation landless farmers increased by 24.71%. The table also reveals that employment opportunities of project participating small farmers also increased after joining PKSF project. Total activities of small farmer were increased by 26.46%. Employment generation increased both for project participating landless and small farmers after joining the PKSF project.

**Change in asset possession**

Changes have been occurred in the asset possession of the selected small and landless

farmers under PKSF in the study areas of Brahmanbaria and Kishoregonj district. Eight different assets were identified and the value of asset possession in Brahmanbaria and Kishoregonj district are shown in Table 6. Table 6 reveals that asset possession of almost all project participating farmers increased substantially. In Brahmanbaria district, before participating the project, value

of asset possession of landless farmer was Tk. 4,750.98 which increased to Tk. 10,471.64, about 120% rise in per family asset possession. Before participating the project, value of assets of small farmers was estimated at Tk. 11,303.32 which increased to Tk. 21,786.65, indicating 92.74% rise in asset possession per family.

Table 5. Average change in employment generation in Brahmanbaria and Kishoregonj district

District	Activities	Employment generation (man-days/family)					
		Landless farmer			Small farmer		
		After	Before	Change (%)	After	Before	Change (%)
Brahmanbaria	Cattle fattening	64.19	-	Infinitive	64	-	Infinitive
	Goat rearing	34.50	18.50	86.48	30.83	15.16	103.36
	Poultry keeping	38.96	30.25	28.79	42.44	36.92	14.95
	Vegetables	7.50	3.86	94.30	5.66	2.93	93.17
	Fruits	3.63	2.46	47.56	3.96	2.03	95.07
	Fishery	128.66	110.33	16.61	28	9	211.11
	Small trading	-	-	-	132	125.33	5.32
	Service	122.33	122.33	No change	131.33	131.33	No change
	Business	165	162.50	1.53	211	176.33	19.66
	Rickshaw pulling	62.66	61	2.72	10.66	9.33	14.25
	Other	31	29	6.8	21.33	18.66	14.30
	Total	658.40	540.23	21.87	681.21	527.02	29.25
Kishoregonj	Cattle fattening	70.80	-	Infinitive	67.23	-	Infinitive
	Goat rearing	38.6	32.79	17.71	34.87	29.45	18.40
	Poultry keeping	42.29	39.57	6.87	48.15	42.32	13.77
	Vegetables	4.75	4.30	10.46	6.29	5.45	15.41
	Fruits	4.26	3.15	35.23	3.45	2.97	16.16
	Fishery	30.45	26.31	15.73	40.20	35.70	12.60
	Small trading	201.2	180.25	11.62	240.50	197.37	21.85
	Service	110.49	110.49	-	130.2	130.2	-
	Business	180.75	140	29.10	190.35	160.96	18.25
	Rickshaw pulling	50.35	50.35	-	20.23	20.23	-
	Other	20	17.30	15.60	40.90	25.65	59.45
	Total	753.94	604.51	24.71	822.37	650.3	26.46

Table 6. Average change in asset possession in Brahmanbaria and Kishoregonj district

District	Types of asset	Asset possession (Value in Tk.)					
		Landless farmer			Small farmer		
		After	Before	Change (%)	After	Before	Change (%)
Brahmanbaria	Fattened cattle	3200	-	Infinitive	4466.66	-	Infinitive
	Cattle	976.66	800	22.08	2133.33	1200	43.74
	Poultry	946.66	526.66	79.74	1950	1180	65.25
	Cash money	966.66	406.83	137.60	3820	2016.66	89.42
	T.V	300	300	No change	2300	2300	No change
	Radio	856.66	856.66	No change	820	600	36.66
	Jewelry	1595	827.5	92.74	2850s	1550	83.87
	Furniture	1630	1033.33	57.74	3446.66	2456.66	40.29
	Total	10471.64	4750.98	120.41	21786.65	11303.32	92.74
Kishoregonj	Fattened cattle	4500	-	Infinitive	5102.40	-	Infinitive
	Cattle	1025.35	720.98	42.21	1230.92	821.71	49.79
	Poultry	1260.90	830.77	51.80	1070.75	750.63	42.64
	Cash money	920.20	430.25	113.87	2920.20	2140.72	36.41
	T.V	580	580	-	3187.59	2630.29	21.18
	Radio	735.27	735.27	-	582.70	490.52	18.79
	Jewelry	1280.79	780.19	64.16	4380.33	3129.92	39.95
	Furniture	1820	1701.50	6.96	6320.88	5270.95	19.91
	Total	12122.51	5778.96	109.76	24795.77	15234.74	62.75

In Kishoregonj district, the value of assets possessed by the landless farmers was Tk. 5778.96 before participating the project which increased to Tk. 12122.51, indicating 109.76% increase. Before participating the project, value of assets possessed by small

farmers was Tk. 15234.74 which increased to Tk. 24795.77, indicating 62.75% rise in asset possession per family. It indicates that the project participating farmers can increase their asset possession after joining the cattle fattening project irrespective of areas.

### Conclusion

Cattle fattening is a profitable farming for the participating landless and small farmers under PKSF project. The findings clearly indicated that the project participates were able to increase their income, creating employment opportunities and making asset

after joining PKSF. In the context of income generation, employment creation and increased asset possession, cattle fattening activity played a crucial role as an instrument for poverty alleviation.

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