

EEP/Shiree

CMS3 Seasonal Survey Report

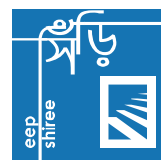
Survey 3

October-November 2010



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Swiss Agency for Development
and Cooperation SDC



Executive Summary

1. **Background:** This report provides socio-economic information on the third follow-up survey conducted in October/November 2010 (referred to as October 2010, hereafter) of the same households first surveyed in March/April 2010 (the baseline study). Thirty two households were absent, 1 had permanently moved away, 29 were temporarily away and two households refused to take any further part in the panel surveys. 352 households were studied and the attrition rate was 8%.
2. **Changes in demographic profile between March and October 2010:** Five male heads died over this 6 month period and female headed households increased from 40.9% to 41.8%. Thirteen children were born and the overall family size increased from 3.3 to 3.4.
3. **Morbidity status:** When all household members were considered together, skin and eye infections and passing of worms tended to decline between March and October 2010 while the prevalence of diarrhoea increased.
4. **Employment:** For male heads agricultural day labouring and other day labouring were the most common occupations in both March and October. However there was a 9% fall in day labouring between March and October surveys and unemployment also fell while male heads engaged in petty trading and fishing and aquaculture increased. Day labouring and domestic service were the two most common occupations of female heads in both March and October, but there was a 10% reduction in domestic service and an 8% reduction in day labouring between March and October offset by increases in petty trading, agriculture, fishing and rearing of livestock. The number of female heads who were unemployed increased while begging fell slightly but still remained high, at over 13%.
5. **Employment status:** Female heads were more likely to be self-employed than male heads (60.3% versus 41.2%, respectively). The self-employed reported working, on average, 7 more days in the previous month (30 days), female heads reported

working, on average, nearly 1 more day and urban dwellers reported working, on average, nearly 5 more days in the previous 30 days. The average reported number of hours worked per day was 5.2 hours, more so by the self-employed (>1 hour) and by urban residents (>2.5 hours). Multiple occupations were quite common, with heads of households having the most occupations (up to 6). On average, female heads had significantly more occupations (2.1) than male heads (1.7) and overall female adults had more occupations than male adults (1.7 versus 1.5, respectively). 4% of households worked through advance sale of labour.

6. **Loans:** There was a significant increase in the number of households taking up a loan, primarily free informal) between March and October (up from 33% to 43%) mainly due to an increase by female headed households (up from 19% to 30%). The average values of the total loan and free informal loan decreased between March by, on average, 1412 and 863 Taka, respectively. Female heads had significantly smaller loans in both March and October.
7. **Savings:** The number of households with cash savings increased from 37% in March to 75% in October and mean savings increased by about 480 Taka. In March male headed households had, on average, more savings than female headed households (624 versus 250 Taka) but in October female heads cash savings were higher (insignificant) than male heads (1185 versus 884 Taka).
8. **Regular cash income:** Based on regular cash income only, the overall mean monthly income increased by just over 200 Taka. There were significant falls in mean income in NETZ and PAB and increases in DSK and SCF. Per capita income was up by 1 Taka pppd, an insignificant change. In rural areas the percentage below the 22 Taka threshold increased significantly from 69% to 77%, while in the urban areas the percentages below the threshold fell significantly from 52% to 30% (based on 26 Taka pppd) and from 63% to 32% based on 30 Taka pppd.
9. **In-kind income:** Overall mean in-kind income increased significantly by nearly 200 Taka/month between March and October and the in-kind contribution to total income also rose significantly from 17% to 23%.
10. **Expenditure:** There was a small but insignificant increase in overall expenditure from 2310 Taka/month to 2444 Taka/month. The increase was mainly due to increased

household and work-related expenditure offset by a fall in food expenditure. In the March survey food expenditure accounted for 75% of total expenditure and by October this had fallen significantly to 67%. There was little change in per capita expenditure between March and October except that food expenditure fell significantly from 17.9 to 16.2 Taka pppd. The percentage of rural households below the 22 and 26 Taka thresholds increased, but not significantly, and nearly 80% of rural household were below the 26 Taka threshold. In the urban areas there was considerable improvement and only 18% of households were below the 30 Taka threshold in October compared with 44% in March.

11. **Difference between household income and expenditure:** Regular cash income was less than expenditure and the number of households in indebtedness increased significantly from 65.3% to 70.2% between March and October. However there was an insignificant decline in mean indebtedness from 487 Taka to 390 Taka over this time period.
12. **Household food intake and security:** Between March and October consumption of flour, pulses, green vegetables, fruit, milk, eggs and poultry increased significantly while consumption of potato and meat significantly decreased. The mean number of foods consumed in the 7 days prior to the study increased significantly from 5.9 to 6.9 (maximum 13) while food diversity also increased from 4.3 to 4.9 (maximum 7 food groups). The number of days foods were consumed increased by over 55% for fresh fish, 38% for fruits, 35% for pulses and 30% for green vegetables. There was a significant improvement in food coping strategies with a reduction in mean from 3.4 to 3.1 between March and October; there were significant reductions in households reporting eating smaller portions of food (down from 84.4% in March to 67.7% in October) and eating less than 3 meals a day (down from 67.1% to 58%) but more households reported eating gathered food (up from 21.3% to 40.0%).
13. **Social empowerment:** Only just over a quarter of households reported having contact with influential people during the previous 3 months. Decisions about money, cash savings, loans, spending on education, health care, the use of contraception, when to have children and marital age of children were most commonly reported as being taken jointly by the husband and wife. There were no significant differences in the reported preferences of husbands and wives for boys

or girls and the majority favoured equal treatment of boys and girls. Over 75% of women reported feeling confident to talk to non-family males, to make small financial decisions alone and did not feel frightened about moving alone outside their village or urban area.

14. **Asset transfer:** 27% of households had received some assets from shiree in the previous three months, most commonly a cow, cattle food or a rickshaw. The average worth of the asset transferred was nearly 6500 Taka. More households received assets in NETZ and UTTARAN; only 1 household in DSK received an asset and no asset transfer occurred in CARE.

1. BACKGROUND

EEP/shiree (www.shiree.org) is a challenge fund supported by UKaid from the Department for International Development (DFID) in partnership with the Government of Bangladesh (GoB) to lift 1 million people out of extreme poverty by 2015. Harewelle International Ltd and PMTC Bangladesh Ltd manage the fund in consultation with EEP/shiree consortium partners including the Centre for Development Studies (CDS) at Bath University, the British Council and Unnayan Shamannay. EEP/shiree is one in DFID's portfolio of projects designed to reduce extreme poverty and hunger in Bangladesh.

In order to monitor and evaluate socio-economic, empowerment and nutritional change, longitudinal (panel) surveys are being conducted on randomly selected households. Besides these surveys, shiree also supports qualitative studies which focus on key livelihood aspects of extreme poverty. The qualitative studies will provide rich longitudinal data and more rounded insights into the choices and constraints facing extreme poor households. The different monitoring instruments are integrated as elements of a change monitoring system (CMS).

shiree is working with 6 NGOs in the first Scale fund round (contracted in 2009). 2 NGOs (CARE and PAB) are working in the far north-west of Bangladesh, NETZ in the north-west, DSK in two urban slums in Dhaka and SCF and UTTARAN in the south-west (Table 1).

Table 1 Location of the 6 NGOs

NGO	Location
CARE	Gaibandha, Nilphamari, Rangpur, Lalmonirhat
DSK	Dhaka slums
NETZ	Naogaon
PAB	Gaibandha, Nilphamari, Rangpur, Lalmonirhat
SCF (UK)	Khulna, Bagerhat
UTTARAN	Satkira, Khulna

October and early November is a time in Bangladesh when employment opportunities are scarcer in the rural areas as the harvesting of the main cereal crop (Amon paddy) is not until mid-November onwards. With little crop related

activities labour wages are also suppressed and there can be increased indebtedness of various forms including advance sale of labour.

Overall the price of rice and other crops are higher at this time of year which is problematic for low income households and the purchasing power of agricultural labour worsened from May to June by 17.4%.

This report compares the socio-demographic and economic characteristics of the same households (including household assets, income and expenditure and social empowerment) in the 6 months between the March and October 2010 surveys.

2. AIMS OF THE SEASONAL SURVEYS

Through the periodic surveys the project aims to determine:-

- (a) seasonal changes in household socio-economic and empowerment status as a result of the shree programme
- (b) seasonal changes in socio-economic status and empowerment between participants from different NGOs

3. STUDY DESIGN

A longitudinal (panel) study design is being used in which 384 households, 64 households from each NGO, are being followed up three times a year. This study was the third follow-up of the cohort first studied in March/April 2010 (the second survey was conducted in July 2010).

4. FIELD WORK

The survey took place in 4 working weeks commencing 19th October and ending on 12th November. A total of 12 people were involved in conducting the survey comprising three shiree staff members and 9 enumerators.

A trained Bangla speaking enumerator asked a series of pre-tested questions to the head of household (or if the male head was absent, his spouse). The structured questionnaire covered 6 key areas:

- a. socio-demographic characteristics
- b. disability, chronic illness and health status of all household members
- c. cash loans and saving
- d. household income and expenditure
- e. household food intake and food security
- f. gender and empowerment issues

The interview usually lasted about 1 hour.

5. RESULTS

5.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

In the October 2010 survey a total of 32 of the original sample of 384 households were not present on the day of data collection for a variety of reasons. Most of the absent households (29) came from DSK (14) and CARE (6) and absenteeism was probably because the survey took place close to Eid and the households were away visiting relatives. Of the remaining three households one had migrated out of the locality permanently and two refused to be interviewed (and they had also refused to receive any benefit from the project). Between the March and October surveys 5 male heads had died and another male head had moved elsewhere, so the number of female heads increased by 6 between March and October. As a result the proportion of the households that were female headed increased from the original 40.9% to nearly 41.8% (Table 2). In addition, 13 households reported the arrival of a new baby since the March 2010 survey.

Table 2 Status of households

Round	Number of households	Attrition rate	Female headed households (%)	Mean family size	Number of male head deaths	Number of Births
March 2010	384	-	40.9	3.3	-	-
October 2010	352	8%	41.8	3.4	5	13

5.2 MORBIDITY STATUS

The morbidity status (diarrhoea, fever, cough, skin infection and eye infection) of each household member was ascertained over three time periods: (i) on the day of the survey (ii) over the previous seven days and (iii) over the previous 30 days. Data was also collected on whether the family members have passed worms on the day of the survey, over the previous 7 and 30 days.

There was no significant difference in the morbidity status of male and female heads of households over any of the time periods except that significantly more female than male heads reported having a fever on the day of the survey (17.7% versus 6.4%, $p=0.001$, respectively). Between the March and October surveys there were no significant changes in the prevalences of diarrhoea, fever and cough over any of the three time periods (male and female heads combined). For all time periods skin infections more than doubled between March and October while eye and worm infections decreased significantly (Table 3).

Table 3 Morbidity Status (%) of Head of Household in March and October 2010

Condition	Day of survey			Previous 7 days			Previous 30 days		
	March	October	p	March	October	p	March	October	p
Diarrhoea	1.7	4.6	ns	8.9	12.9	ns	19.1	23.4	ns
Fever	7.4	11.1	ns	23.1	25.4	ns	44.3	47.7	ns
Cough	22.0	18.3	ns	27.4	26.6	ns	38.6	36.9	ns
Skin infection	8.9	19.7	<0.001	8.9	20.6	<0.001	9.1	21.7	<0.001
Eye infection	20.9	4.0	<0.001	22.6	6.0	<0.001	23.1	16.0	<0.001
Passed worms	14.6	3.7	<0.001	17.4	7.4	<0.001	20.9	10.6	<0.001

The morbidity patterns grouped by all adults, 5 to 15 year olds and under 5 year old children on the day of the survey is presented in Table 4. All three groups passed fewer worms between March and October surveys and adults had significantly less eye infection but more skin infection. These findings were replicated in the previous 7 day period, but in addition children 5 to 15 years had a significant increase in diarrhoea and eye infection. Over the previous 30 days the main additional change was in under 5 year olds who showed a decrease in coughing but an increase in eye infection between March and October.

Table 4 Morbidity Status (%) of all family members on the day of the survey in March and October 2010

Condition	All adults			5-15 year old children			< 5 year old children		
	March	October	p	March	October	p	March	October	p
Diarrhoea	2.0	3.1	ns	0.6	2.0	ns	3.2	6.5	ns
Fever	7.5	11.0	0.022	8.5	4.6	0.033	9.7	7.7	ns
Cough	14.5	15.8	ns	8.5	7.7	ns	15.5	14.2	ns
Skin infection	6.9	14.7	<0.001	3.4	4.6	ns	4.5	9.7	ns
Eye infection	16.5	3.1	<0.001	0.3	0.3	ns	1.3	0.6	ns
Passed worms	13.8	2.5	<0.001	17.9	2.6	<0.001	17.4	3.2	<0.001

Table 5 Morbidity Status (%) of all family members in the previous 7 days in March and October 2010

Condition	All adults			5-15 year old children			< 5 year old children		
	March	October	p	March	October	p	March	October	p
Diarrhoea	7.6	10.3	ns	2.8	8.3	0.002	11.0	9.0	ns
Fever	19.5	23.6	ns	17.4	12.5	ns	25.8	25.8	ns
Cough	20.1	22.7	ns	12.5	8.0	0.047	25.2	18.1	ns
Skin infection	6.9	15.5	<0.001	3.7	4.8	ns	3.9	9.7	0.042
Eye infection	17.8	5.4	<0.001	0.3	3.4	0.002	1.9	3.9	ns
Passed worms	16.9	6.8	<0.001	19.7	6.0	<0.001	23.9	11.0	0.003

Table 6 Morbidity Status (%) of all family members in the previous 30 days in March and October 2010

Condition	All adults			5-15 year old children			< 5 year old children		
	March	October	p	March	October	p	March	October	p
Diarrhoea	15.1	19.8	ns	8.3	13.7	0.022	23.2	16.8	ns
Fever	38.6	43.1	ns	31.3	30.2	ns	46.5	38.7	ns
Cough	29.2	31.8	ns	18.5	18.8	ns	36.8	25.8	0.037
Skin infection	7.1	16.5	<0.001	3.7	6.0	ns	5.2	11.0	ns
Eye infection	18.1	14.0	0.036	1.1	14.2	<0.001	1.9	8.4	0.010
Passed worms	19.4	8.8	<0.001	20.8	8.3	<0.001	20.6	16.8	ns

Table 7 Morbidity Status (%) of all family members combined on the day of the survey and the previous 7 and 30 day in March and October 2010

Condition	Day of the survey			Previous 7 days			Previous 30 days		
	March	October	p	March	October	p	March	October	p
Diarrhoea	1.7	3.1	0.017	6.7	9.6	0.009	14.2	17.6	0.020
Fever	8.1	8.7	ns	19.7	20.7	ns	37.5	38.8	ns
Cough	12.9	13.3	ns	18.5	17.9	ns	27.1	27.3	ns
Skin infection	5.6	11.1	<0.001	5.6	11.7	<0.001	5.8	12.8	<0.001
Eye infection	9.9	2.0	<0.001	10.7	4.6	<0.001	11.1	13.3	ns
Passed worms	15.5	2.6	<0.001	18.6	7.1	<0.001	19.9	9.6	<0.001

When all household members were considered together (Table 7) there was evidence of a highly significant decline in passing of worms but increases in diarrhoea and skin infection, but no significant changes in the prevalence of fever, and cough between March and October 2010.

5.3 EMPLOYMENT

5.3.1 Occupations of household heads

Details of the main occupation of the head of household were collected at the baseline survey in March 2010 and again in October 2010. The occupations have been grouped under 12 headings (see Table 8) and there were highly significant occupational changes in both male and female headed households between the two surveys (both $p < 0.001$) as well as highly significant differences in occupations between male and female within each survey (both $p < 0.001$).

Table 8 Main occupation (%) of Heads of Households in March and October 2010

Occupation	Male		p	Female		p
	March	October		March	October	
Unemployed	5.4	2.4	<0.001*	5.5	7.5	<0.001*
Agricultural day labourer	35.6	31.2		17.0	12.2	
Other day labourer	20.5	16.1		9.5	6.1	
Domestic maid	0.5	0.5		29.9	19.0	
Rickshaw	15.6	17.6		0.7	-	
Skilled labour	4.4	5.4		0.7	2.7	
Fishing/aquaculture	4.4	6.3		2.7	3.4	
Livestock	-	0.5		-	5.4	
Cottage/garment	1.5	4.4		2.0	6.1	
Petty trade	8.8	12.2		10.2	13.6	
Begging/scavenging	3.4	3.4		16.3	13.6	
Housework	-	-		5.4	10.2	
Total	100.0	100.0	100.0	100.0		

* exact tests

Among male heads, agricultural day labouring and other day labouring were the most common occupations in both surveys but there was about a 9% decline in day labouring between March and October, unemployment also fell among male heads over this period while those engaged in petty trading, fishing and aquaculture and cottage industries increased. Among female heads day labouring and domestic service were the two most common occupations in both March and October, but there were marked reductions in October offset by increases in petty trading and agriculture and fishing and rearing livestock. The number of female heads who were unemployed increased while begging fell slightly but still remained high at over 13%.

Information about self employment, number of days worked and hours worked each week were not obtained in the March survey. In the October survey overall 49.1% of heads were self employed but female heads were significantly more likely to be self employed (60.3% versus 41.2%, female and male, respectively, $p < 0.001$, Table 9) and overall and in male headed households there was also highly significant variation by NGO with about two thirds of DSK and SCF households having self employed heads but only 11.5% of NETZ male heads were reported as being self employed.

Table 9 Self employed heads of households (%) by NGO

NGO	Male	p	Female	p	Total	p
CARE	40.8	<0.001	44.4	ns	41.4	<0.001
DSK	62.5		69.7			
NETZ	11.5		61.1			
PAB	30.2		38.9			
SCF	62.5		71.4			
UTTARAN	47.4		54.5			
Total	41.2		60.3			

The average reported number of days worked in the last 7, 14 and 30 days was 3.5, 10.3 and 14.4 respectively. The self employed reported working, on average, for significantly more days than those working for some else (Table 10) by between 1.78 and 3.50 days. Female heads worked, on average, more days than male heads and urban residents reported working more days than rural residents (by between 1.35 and 4.74 days). During the last 7 days the average reported number of hours worked per day was 5.2 more so by the self employed and by urban residents (Table 10).

Table 10 Mean number of days and hours worked by head of household, urban-rural and type of employment

Number of days worked	Mean	Male*	p	Urban*	p	Self*	p
In the last 7 days	3.5	-0.23	0.006	+1.35	<0.001	+1.78	<0.001
In the last 14 days	10.3	-0.68	0.001	+2.84	<0.001	+3.50	<0.001
In the last 30 days	14.4	-0.97	<0.001	+4.74	<0.001	+7.22	<0.001
Hours worked in the last 7 days	5.2	+1.30	ns	+2.59	<0.001	+1.14	0.003

*the table presents the results of sequential analyses of variance in which female head, rural and working for some else are the reference groups and their means have been set to 0

5.3.2 Multiple occupations

One of the characteristics of poverty in general and extreme poverty in particular is the uncertainty which individuals face over employment and the inadequacy of their income sources. In order to overcome these, the poor often undertake a variety of activities. Information on multiple occupations was not collected in the baseline survey in March 2010.

Having a number of occupations was quite common (Table 11) with heads of households having the most (up to 6). Female headed households had significantly more occupations than male heads (2.1 versus 1.7, respectively). Female adults had significantly more occupations (1.72) than male adults (1.48) but there were no significant differences in mean number of occupations of male and female children.

Table 11 Percentage of household members working by gender and by number of occupations in October 2010

Member	Occupation (% working)																								Mean number of occupations			
	1 st				2 nd				3 rd				4 th				5 th				6 th				M	F	p	
	M*	F*	T*	p	M	F	T	p	M	F	T	p	M	F	T	p	M	F	T	p	M	F	T	p	M	F	p	
Head	98.0	95.9	97.1	ns	53.4	71.2	60.9	0.001	14.7	32.9	22.3	<0.001	2.0	7.5	4.3	0.011	0.5	2.7	1.4	ns	0.5	1.4	0.9	ns	1.69	2.11	<0.001	
2nd adult	88.6	96.4	95.1	0.028	34.1	52.2	49.3	0.028	6.8	12.9	11.9	ns	2.3	2.7	2.6	ns	-	0.4	0.4	ns					1.32	1.65	0.017	
3rd adult	84.6	67.6	75.0	ns	26.9	11.8	18.3	ns	3.8	2.9	3.3	ns	3.8	-	1.7	ns									1.19	0.82	ns	
4th adult	-	50.0	50.0	-	12.5	12.5																						
5th adult		100.0	100.0																									
All adults																									1.72	1.48	<0.05	
1st child	76.6	78.9	77.3	ns	8.5	5.3	7.6	ns	3.0	-	3.0	-													0.87	0.84	ns	
2nd child	64.7	35.7	51.6	ns	-	3.2	3.2	-																				
3rd child	16.7	40.0	27.3	-																								
All children																									0.87	0.58	ns	

*M=Male head, F=Female head and T=Total

In total 14 households (4%) worked through advanced sale of labour, 10 households involved the head of household. The number of days of advanced sale of labour was generally between 2 and 7 days and only one household reported sale of 18 days of advanced labour (Table 12).

Table 12 Advance sale of labour in October 2010

Last 7 days		Last 14 days		Last 30 days		Last 3 months	
%	Days (range)	%	Days (range)	%	Days (range)	%	Days (range)
2.8	1-7	2.8	1-14	2.8	1-30	1.4	1-18

5.4 CASH LOANS AND SAVINGS

5.4.1 Cash Loans

Five sources of cash loan were identified (i) free informal (ii) informal loans with interest (iii) interest loans from shomiti/CBO (iv) interest loans from microfinance institutions and (v) interest loans from a bank or Government of Bangladesh (Table 13).

There was a significant increase in the number of households taking up a loan between March (n=117) and October (n=149), up from 33.3% to 42.7% (p=0.001) mainly due to an increase in female headed households (up from 19.0% to 30.3% compared with male heads, up from 43.4% to 50.5%). The main change was in the number of free informal loans, up from 66 to 92. Nearly a quarter of households (24.4%) had loans in both March and October while nearly half (48.4%) of households had no loan on both occasions. The total mean loan and free informal loan both decreased significantly between March and October by, on average, 1412 and 863 Taka, respectively (Table 13).

Female headed households had, on average, less loans than male headed households in both March (2882 versus 5374 Taka, p<0.001) and October (2008 versus 3934, p=0.002).

Table 13 Loans (Taka) according to type in March and October 2010

Type of Loan	March		October		p
	N	Mean	N	Mean	
Free informal	66	2645	92	1779	<0.01
Interest informal	52	4512	60	3572	ns
Shomiti/CBO	8	3258	9	3364	ns
Microfinance	17	4668	21	3716	ns
Bank	7	6476	2	8350	ns
Total loans	117	4777	149	3366	<0.005

Matched comparisons were undertaken for free informal, interest informal, microfinance and total loans (Table 14) and no significant mean differences were found between March and October.

Table 14 Matched loan (Taka) comparisons by source

Type of Loan	N	March	October	p
Free informal	23	3226	2612	ns
Interest informal	31	5193	4505	ns
Microfinance	9	4266	4477	ns
Total loans	85	5501	4646	ns

5.4.2 Cash savings

The respondents were asked about the extent of their cash savings and the percentage of households with savings increased from 37% in March to 75% in October ($p < 0.001$). The percentage of household with savings increased significantly in all NGOs except for PAB (Table 15). Mean savings (of those with savings) increased from 482 Taka/household to 1003 Taka/household ($p < 0.001$) and there were significant increases in DSK, and NETZ. In October DSK mean savings were significantly higher than the other NGOs (< 0.001). In March male headed households had significantly more cash savings, on average, than female headed households (624 versus 250 Taka, respectively) but in October female headed cash savings were slightly higher than male headed (1185 Taka versus 884 Taka, p ns). There were 115 households who had cash savings in both March and October and matched analyses revealed a highly significant increase (up from 500 Taka/household to 1512 Taka/household, $p < 0.001$).

Table 15 Cash savings (Taka) by NGOs in March and October 2010

NGO	% of households with cash savings		p	Mean		p
	March	October		March	October	
CARE	64	85	0.011	491	717	ns
DSK	84	100	0.003	259	2300	<0.001
NETZ	29	94	<0.001	82	689	<0.001
PAB	39	41	ns	1150	1285	ns
SCF	7	42	<0.001	655	1109	ns
UTTARAN	7	95	<0.001	347	273	ns
Total	37	75	<0.001	482	1003	<0.001

5.5 HOUSEHOLD INCOME

5.5.1 Cash Income

HIES calculated income based on regular cash income only (see Annex 1). Between March and October mean total income across all six NGOs rose by, on average, 216 Taka (p ns, Table 16). Mean income fell significantly in NETZ and PAB and rose in SCF and DSK and there was no significant change in UTTARAN or CARE. Overall income in the rural areas fell by, on average, 114 Taka/household (p ns). Per capita income fell significantly in CARE, NETZ and PAB and rose in SCF; overall in the rural areas there was a borderline significant fall in income by, on average, 1.9 Taka pppd (p=0.053). DSK per capita income rose by over 69% between March and October to reach 45.8 Taka pppd. Overall there was an increase of 1.0 Taka pppd (p ns).

Table 16 Regular cash income (Taka) per month and per capita/day (Taka pppd) in March and October 2010

NGO	Household income/month			Household per capita per day		
	March	October	p	March	October	p
CARE	2294	1905	ns	22.7	17.3	0.046
DSK	2800	4970	<0.001	27.1	45.8	<0.001
NETZ	1496	1076	0.002	18.1	12.8	0.003
PAB	1984	1367	0.018	20.8	13.2	0.002
SCF	1063	1814	<0.001	10.8	17.6	<0.001
UTTARAN	1402	1542	ns	14.2	16.0	ns
Total Rural	1648	1534	ns	17.3	15.4	0.053
Total	1807	2023	ns	18.7	19.7	ns

Table 17 Percentage of households below per capita income (Taka pppd) thresholds in March and October 2010

Location	March	October	p	Both <	Improve	Decline	Both >
Urban							
< 26 Taka (2007 prices)	52.0	30.0	0.013	24.0	28.0	6.0	42.0
< 30 Taka (2009 prices)	62.0	32.0	<0.001	26.0	36.0	6.0	32.0
Rural							
< 22 Taka (2007 prices)	68.9	77.2	0.020	55.3	13.6	21.9	9.3
< 26 Taka (2009 prices)	78.1	83.8	ns	67.5	10.6	16.2	5.6

The percentage with per capita income below the extreme poverty thresholds declined in the urban area between March and October but increased in the rural areas, significantly so for the 22 Taka threshold, up from 68.9% to 77.2%. The Table also shows that the net improvement (improve – decline) was between 22% and 30% in the urban area while the net decline in the rural areas was between 5.6% and 8.3%.

5.5.2 In-kind income

Households also obtained income in-kind. Table 18 shows that the overall mean in-kind significantly increased by, on average, nearly 200 Taka/month between March and October and the percentage that in-kind income contributed to total income rose significantly from 17% to 23%. Only in NETZ and in the Total rural area were there significant increases in mean in-kind income between March and October, while the percentage of in-kind to total income increased significantly in NETZ and PAB and in the rural NGOs over this time period.

Table 18 In-kind income (Taka) in March and October 2010

NGO	Mean			% of total income		
	March	October	p	March	October	p
CARE	318	393	ns	16	18	ns
DSK	455	939	ns	8	15	ns
NETZ	153	483	<0.001	16	33	<0.001
PAB	330	446	ns	15	29	0.003
SCF	219	337	ns	25	20	ns
UTTARAN	256	320	ns	21	20	ns
Total Rural	255	396	0.004	19	24	0.009
Total	283	474	0.010	17	23	0.003

5.6 HOUSEHOLD EXPENDITURE

In the total sample there was a small but insignificant increase in monthly expenditure between March and October (2310 Taka/month versus 2444 Taka/month, respectively); only in DSK was there a significant increase in expenditure by, on average, 1060 Taka/month (Table 19). The increased expenditure was mainly due to significant increase in household expenditure (up from 559 Taka per month to 719 Taka/month and work-related expenditure (up from 18 Taka/month to 88 Taka/month) offset by a decline in food expenditure (down from 1733 Taka/month to 1635 Taka/month). Food expenditure declined significantly in NETZ, PAB and in the total rural sample. In the March survey food expenditure accounted for 75% of total expenditure and by October this had fallen to 66.9%, a significant decline ($p=0.018$). Across the rural NGOs food expenditure fell from 81.0% to 74.4% ($p=0.025$).

Based on per capita expenditure there was little change between March and October (Table 20) except that food expenditure fell overall from 17.9 to 16.2 Taka pppd ($p=0.003$) and there were significant falls in food expenditure in CARE, PAB, NETZ and across the rural NGOs.

The percentage of rural households below the 22 Taka and 26 Taka thresholds increased, but not significantly and close to 80% of rural households were below the 26 Taka threshold in October. In the urban areas there was considerable improvement and only 18% of households were below the 30 Taka threshold in October compared with 44% in March (Table 21).

Table 19 Mean expenditure (Taka) on food, house, work-related and total by NGO in March and October 2010

NGO	Food			House			Work related			Total		
	March	October	p	March	October	p	March	October	p	March	October	p
CARE	2050	1846	ns	330	688	0.007	6	102	0.004	2386	2636	ns
DSK	2246	2443	ns	1645	2227	0.002	83	358	ns	3968	5028	0.009
NETZ	1301	1092	0.015	202	303	0.003	-	9	ns	1502	1404	ns
PAB	1991	1531	0.002	340	481	ns	10	28	ns	2340	2039	ns
SCF	1462	1696	ns	616	460	ns	-	37	0.012	2083	2201	ns
UTTARAN	1449	1364	ns	413	427	ns	17	43	ns	1885	1835	ns
Total rural	1647	1500	0.004	380	469	ns	7	43	<0.001	2034	2014	ns
Total	1733	1635	ns	559	719	0.028	18	88	0.002	2310	2444	ns

Table 20 Mean per capita expenditure (Taka pppd) on food house, work-related and total by NGO in March and October 2010

NGO	Food			House			Work related			Total		
	March	October	p	March	October	p	March	October	p	March	October	p
CARE	20.2	17.1	0.023	3.2	6.7	0.019	0.1	1.0	0.002	23.5	24.8	ns
DSK	22.1	21.6	ns	17.6	22.1	ns	1.1	6.0	ns	40.7	49.7	ns
NETZ	15.1	13.3	ns	2.6	4.0	0.003	-	0.1	ns	17.6	17.3	ns
PAB	21.4	15.9	<0.001	3.7	4.6	ns	0.1	0.2	ns	25.2	20.7	0.021
SCF	14.2	16.6	0.041	13.8	4.6	ns	-	0.4	ns	28.2	21.6	ns
UTTARAN	15.0	13.7	ns	5.1	4.6	ns	0.2	0.4	ns	20.4	18.7	ns
Total rural	17.2	15.3	0.001	5.7	4.9	ns	0.1	0.4	<0.001	22.9	20.6	ns
Total	17.9	16.2	0.003	7.4	7.3	ns	0.2	1.2	ns	25.5	24.7	ns

Table 21 Percentage of households below per capita expenditure (Taka pppd) thresholds in March and October 2010

Location	March	October	p
Urban			
<26 Taka (2007 prices)	24.0	14.0	ns
<30 Taka (2009 prices)	44.0	18.0	0.004
Rural			
<22 Taka (2007 prices)	61.9	63.3	ns
<26 Taka (2009 prices)	72.8	78.7	ns

5.7 DIFFERENCE BETWEEN HOUSEHOLD INCOME AND EXPENDITURE

The difference between household income and expenditure was calculated for both March and October and overall indebtedness declined slightly from 487 Taka/month to 390 Taka /month (Table 22). However the changes were not consistent across NGOs with both CARE and NETZ showing significant worsening in mean indebtedness. Overall 65.3% of households were in negative balance in March increasing significantly to 70.2% ($p < 0.001$) in October.

Table 22 Difference between reported regular household income and expenditure by NGO

NGO	March Total Income – Total Expenditure	July Total Income – Total Expenditure	p
CARE	-92	-731	0.033
DSK	-1155	+140	ns
NETZ	-6	-328	0.022
PAB	-356	-672	ns
SCF	-1017	-341	ns
UTTARAN	-453	-308	ns
Total rural	-380	-476	ns
Total	-487	-390	ns

5.8 HOUSEHOLD FOOD INTAKE

The households were asked how often family members had eaten 13 food items in the 7 days prior to the study (Table 23). Rice was eaten by nearly all households. Between March and October consumption of flour, pulses, green vegetables, fruit, milk, eggs and poultry increased significantly while consumption of potato and meat decreased significantly.

The extent of household food diversity was determined in two ways (a) based on the mean of the number foods eaten (maximum 13) and (b) based on the 7 food groups (grains, roots and tubers, legumes and nuts, dairy products, flesh foods, eggs, vitamin A rich fruits and vegetables and other fruit and vegetables) as defined by WHO and UNICEF. Consumption of any amount of food from each food group is sufficient to 'count' i.e. there is no minimum quantity.

The mean number of foods consumed in the last 7 days increased significantly from 5.9 to 6.9 while food group diversity also increased significantly from 4.3 to 4.9.

Table 23 Number of days in the last week that household members consumed foodstuffs

Food	March	October	p
Rice			-
0	0	0.9	
1	0	0.3	
2	0	0	
3+	100	98.9	
Flour			ns
0	72.1	65.8	
1	10.5	16.0	
2	8.5	10.5	
3+	8.8	7.7	
Pulse			<0.001
0	61.5	35.0	
1	22.8	26.2	
2	10.0	24.8	
3+	5.7	14.0	
Potato			<0.001
0	1.4	9.7	
1	1.7	7.1	
2	5.7	13.4	
3+	91.1	69.7	
Green vegetables			<0.001
0	18.9	6.3	
1	16.6	14.0	
2	29.7	28.3	
3+	34.9	51.4	
Other vegetables			<0.001
0	5.7	16.9	
1	4.0	8.0	
2	22.3	20.3	
3+	68.0	54.9	
Fruits			<0.001
0	91.4	54.3	
1	6.0	16.9	
2	1.4	16.0	
3+	1.1	12.9	
Milk			0.007
0	92.3	86.3	
1	4.9	4.3	
2	0.9	3.7	
3+	2.0	5.7	
Eggs			<0.001
0	70.6	56.3	
1	22.3	21.7	
2	3.7	16.0	
3+	3.4	6.0	
Fresh fish			<0.001
0	38.0	10.6	
1	34.0	23.1	
2	17.4	27.7	
3+	10.6	38.6	
Dried fish			ns
0	74.0	80.6	
1	10.0	6.9	
2	8.6	4.9	
3+	7.4	7.7	
Poultry			0.017
0	95.7	90.3	
1	2.9	8.3	
2	0.6	0.9	
3+	0.9	0.6	
Meat			0.003
0	90.9	97.1	
1	7.1	1.7	
2	1.4	0.3	
3+	0.6	0.9	
Mean foods eaten	5.9	6.9	<0.001
Mean food diversity	4.3	4.9	<0.001

Table 24 presents the changes in food consumption between March and October based on whether the food was or was not eaten (simply yes or no, columns 2-7) and also whether the number of days the food was eaten increased or decreased over this time period (column 8). Between March and October consumption of flour, pulses, green vegetables, fruit, milk, eggs, fresh fish, poultry increased significantly while consumption of potato, other vegetables, dried fish and meat decreased significantly based on whether or not the food was eaten. A similar pattern was found using the number of days the food was consumed.

Table 24 Changes in Food consumption (%) between March and October

Food	Did not eat at all	Ate both March and October	Ate in March only	Ate in October only	Improve (+) worsen (-)	p	Days eaten % Increase (+) decrease (-)
Rice	0	99.1	0.9	-	-0.9	-	+1.1
Flour	53.6	15.7	12.3	18.5	+6.3	0.043	+6.3
Pulse	25.4	28.8	9.7	36.2	+26.9	<0.001	+34.8
Potato	0.3	89.1	9.4	1.1	-8.3	<0.001	-38.0
Green vegetables	2.0	76.9	4.3	16.9	+12.6	<0.001	+30.8
Other vegetables	1.4	78.9	15.4	4.3	-11.1	<0.001	-14.3
Fruits	49.7	4.0	4.6	41.7	+37.1	<0.001	+38.6
Milk	81.1	2.6	5.1	11.1	+6.0	<0.001	+6.0
Eggs	43.1	16.3	13.1	27.4	+14.3	0.008	+19.4
Fresh fish	6.1	58.0	4.0	31.4	+27.4	<0.001	+55.2
Dried fish	65.4	10.9	15.1	8.6	-6.5	0.015	-6.8
Poultry	86.3	0.3	4.0	9.4	+5.4	0.008	+5.4
Meat	88.9	0.9	8.3	2.0	-6.3	<0.001	-5.7

5.9 HOUSEHOLD FOOD SECURITY

The households were asked about the coping strategies they used as a result of financial hardship in the seven days prior to the survey with a pre-coded list of 10 food strategies (Table 25). Fewer households reported eating smaller portions of food between March and October (down from 84.4% to 67.7%), eating less than 3 meals a day (down from 67.1% to 58.0%), eating food of less quality (down from 63.4% to 47.1%) and less adults ate no food in the previous 24 hours (down from 6.6% to 2.6%) but more households reported eating gathered food (up from 21.3% to 40.0%). There were no significant differences in borrowing money to buy food (about 17%), buying food on credit (about 30%), sending a family member elsewhere for food (about 15%) and giving more food to earning household members (about 35%). There was significant improvement (reduction) in food coping strategies with a fall in mean from 3.4 to 3.1 between March and October.

Table 25 Food coping strategy in March and October 2010

Food Strategy	March (%)	October (%)	p
Eat smaller portion			<0.001
0 days	16.6	32.3	
1 day	8.9	8.0	
2 days	27.7	20.6	
3+ days	46.9	39.1	
Eat < 3 times a day			<0.001
0 days	32.9	42.0	
1 day	4.3	6.2	
2 days	16.6	9.9	
3+ days	46.3	42.0	
Eat food of less quality			<0.001
0 days	36.6	52.9	
1 day	21.4	9.7	
2 days	21.1	16.3	
3+ days	20.9	21.1	
Eat gathered food			<0.001
0 days	79.7	60.0	
1 day	8.9	12.3	
2 days	8.6	13.4	
3+ days	2.9	14.3	
Eat no food in 24 hours adult			0.031
0 days	93.4	97.4	
1 day	5.7	2.0	
2 days	0.9	0.6	
3+ days	-	-	
Eat no food in 24 hours child			ns
0 days	99.7	99.7	
1 day	0.3	0.3	
2 days	-	-	
3+ days	-	-	
Borrow money to buy food			ns
0 days	82.0	82.6	
1 day	10.6	10.3	
2 days	5.4	4.3	
3+ days	2.0	2.9	
Bought food on credit			ns
0 days	72.3	70.3	
1 day	10.6	11.1	
2 days	10.9	9.7	
3+ days	6.3	8.9	
Send family member elsewhere for food			ns
0 days	83.6	89.1	
1 day	4.9	4.3	
2 days	5.2	2.9	
3+ days	6.3	3.7	
Give more food to earning household members			ns
0 days	65.1	63.1	
1 day	2.9	0.6	
2 days	6.9	7.7	
3+ days	25.1	28.6	
Mean food coping	3.4	3.1	<0.001

5.10 SOCIAL EMPOWERMENT

In order to ascertain the level of women's empowerment opinions were sought on a range of issues ranging from social inclusion, households decision making, importance of the sex of children and women's confidence.

5.10.1 Social inclusion

Households were asked whether they had contacted any influential people (e.g. the UP chairman or members or village shalish members) in the last 3 months and overall just over a quarter of households (28.7%) reported having done so. There were highly significant differences between NGOs (Table 26) mainly due to the low contact by DSK households (6%) with influential people..

Table 26 Contact with influential people in the last 3 months

NGO	Contact (%)	p
CARE	43.1	<0.001
DSK	6.0	
NETZ	24.2	
PAB	41.0	
SCF	33.3	
UTTARAN	21.3	
Total	28.7	

5.10.2 Decision making

The section focussed on male headed households only since female headed households are likely to make decisions themselves.

Table 27 Decision making by husbands and wives

Decision making questions	Husband only	Wife only	Jointly	Neither/ NA	Other
Who decides on the use of household money earned?	27.8	8.3	60.0	3.4	0.5
Who decides on the use of household cash savings?	26.8	7.8	60.5	4.4	0.5
Who decides on the taking of a loan?	27.8	5.4	59.0	7.2	-
Who decides on spending money on education for your children?	18.0	8.3	51.7	21.0	1.0
Who decides on spending money for health care of family members?	24.4	8.8	63.4	2.9	0.5
Who usually decides on the use of contraception?	4.9	9.3	63.9	17.6	4.4
Who usually decides on when to have children?	4.9	4.4	73.2	14.6	3.0
Who usually decides on the marriage of your children (age and partner)?	7.8	3.4	63.9	22.4	2.5

The majority of decisions were reported to be made jointly by the husband and wife, particularly on when to have children (Table 27). Less than 10% of wives alone took decisions on use of household money, cash savings or taking up a loan compared with over 25% of husbands alone.

5.10.3 Importance of boys and girls

There were no significant differences in the reported preferences of husbands and wives for boys and girls and the majority favoured equal treatment of boys and girls (Table 28).

Table 28 Importance of boys and girls (%)

Question	Boys only	Girls only	Equally important	p
Is food more important for boys or for girls?				ns
Husband	25.6	20.1	54.3	
Wife	23.9	12.8	63.3	
Are sons more important than daughters?				ns
Husband	25.5	14.3	60.2	
Wife	30.0	14.2	55.7	
Is education more important for boys or for girls?				ns
Husband	21.8	11.5	66.7	
Wife	22.2	13.2	64.6	

5.10.4 Women's confidence

Three questions were posed to women only (Table 28) and about 75% of women felt confident to talk to non-family males, to make small financial decisions alone and did not feel frightened about moving alone outside their village or urban area.

Table 29 Women's Confidence (%)

Questions	Confident	Uncertain	Not confident
Talking to non-family males	74.3	12.5	13.2
Taking small financial decisions alone	76.3	11.3	12.3
Feel frightened to move alone outside your village or urban area	76.0	7.1	16.9

5.11 ASSET TRANSFER

A total of 95 households (27.0% of households) received some asset from the NGOs in the previous 3 months and these were mainly NETZ households (n=41) and UTTARAN (n=34), followed by SCF (n=11), PAB (n=8) and DSK (n=1). No asset transfer was undertaken by CARE (Table 30). The mean worth of each asset was 6483 Taka and there were no significant differences by NGO or between male and female headed households. There were no significant associations between total cash income, total in-kind income or overall income with total worth of assets.

Table 30 Number of households receiving assets and their worth (Taka) by NGO

Asset	CARE		DSK		NETZ		PAB		SCF		UTTARAN		TOTAL	
	n	Value	n	Value	n	Value	n	Value	n	Value	n	Value	n	Value
Cattle	-	-	-	-	21	13418	1	12500	-	-	-	-	22	13376
Cattle food	-	-	-	-	19	500	-	-	-	-	-	-	19	500
Duck/hen	-	-	-	-	-	-	-	-	2	3200	4	3669	6	3513
Seedlings and vegetables	-	-	-	-	-	-	3	3078	-	-	1	3638	4	3218
Goat/sheep	-	-	-	-	1	2790	2	5000	5	4414	1	6480	9	4593
Pig	-	-	-	-	-	-	-	-	-	-	3	5495	3	5495
Business	-	-	-	-	-	-	-	-	-	-	2	4038	2	4038
Rickshaw	-	-	1	11916	-	-	1	5000	1	7925	9	8491	12	8438
Sewing machine	-	-	-	-	-	-	-	-	1	6425	2	12487	3	10466
Cloth	-	-	-	-	-	-	-	-	-	-	5	4758	5	4758
Microphone set	-	-	-	-	-	-	-	-	1	2500	-	-	1	2500
Boat and fishing net	-	-	-	-	-	-	-	-	-	-	1	11180	1	11180
Fishing nets	-	-	-	-	-	-	-	-	1	2800	-	-	1	2800
Fish and hens	-	-	-	-	-	-	-	-	-	-	1	7562	1	7562
Fish	-	-	-	-	-	-	1	300	-	-	1	5990	2	3145
Paddy	-	-	-	-	-	-	-	-	-	-	2	6921	2	6921
Cosmetics	-	-	-	-	-	-	-	-	-	-	1	1926	1	1926
Shoes	-	-	-	-	-	-	-	-	-	-	1	9700	1	9700
Total (Taka) (%)	-	(0)	1 (2)	11916	41 (66)	7172	8 (13)	4629	11 (18)	4375	34 (56)	6609	95 (27)	6483

Annex 1 Calculation of Monthly Income and Expenditure

A. Income

HIES 2005 based household income only on:

1. Household total cash income earned over the 30 days prior to the survey for all household members (adults and children) from all regular activities.

B. Expenditure

HIES based expenditure on 2 items.

1. Expenditure of Food items in the 30 days prior to the survey. Expenditure on food and food related items (Rice, Paddy, Wheat, Potato, Pulses, Fish (dried and fresh), Meat, Poultry, Eggs, Milk, Green Vegetables, Other Vegetables, Fruit, Sugar, Salt, Spices, Cooking Oil and other food items and sum of all 17 food expenditure items was calculated.

2. Selected Expenditure on Household, Agriculture and Social Events in the 30 days prior to the survey. Expenditure on the following items Kerosene, Soap, Other Toiletries, Education, Transport Costs, Health Care, Clothing and Footwear, House Rent, Mobile and other telephone and the sum of all 9 items was calculated.

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