

EEP/Shiree

CMS3 Seasonal Survey Report

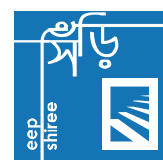
Survey 5

March 2010 – July 2011



Schweizerische Eidgenossenschaft
Confédération suisse
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Swiss Agency for Development
and Cooperation SDC



Executive Summary

1. **Background:** This report provides socio-economic information on the first follow-up of the households studied in March/April 2010. Eight households dropped out – 6 had permanently moved away, one was temporarily away and one household refused to take any further part in the panel surveys. 376 households were studied and the attrition rate was 2%.
2. **Changes in demographic profile between March and July 2010:** Four male heads died between March and July 2010 and the percentage of female heads increased from 40.9% to 41.1%. Four children were born between the two surveys and the overall family size remained at 3.3.
3. **Morbidity Status:** Between March and July adults showed significant reductions in coughing, eye infection and passing of worms, children 5 to 15 years reduction in passing of worms but increase in fever while children under 5 years of age showed no significant differences.
4. **Employment:** Fishing and rickshaw pulling increased in male heads and labouring decreased; female heads begging and domestic service fell and housework and petty trade increased. In July 45% of heads were self employed. The average days worked in the last 7, 14 and 30 days were 4, 8 and 16, respectively; 44% of household heads had a second occupation. 8.9% of households worked through advanced sale of labour.
5. **Loans:** The number of households with a loan increased significantly from 34% to 44% mainly due to the increase in free informal and microfinance loans. The amount of informal and total borrowings was significantly higher in March than in July 2010.
6. **Savings:** The number of households with cash savings was up from 39% to 66% and the amount of savings increased, on average by over 300 Taka.
7. **Income:** Based on regular cash income only, mean monthly household income increased from 1840 to 2021 Taka mainly accounted for by 2000 Taka/month increase in DSK households. Compared with HIES data urban households in the lowest decile fell from 45% to 15%, whereas in rural households over 50% were still in the lowest decile in both March and July surveys. The percentage of households with per capita income below the thresholds declined considerably in the urban areas but there was little or no change in rural areas and between 70% and 80% was below the threshold. In-kind income accounted for 13% of total income in both March and July
8. **Expenditure:** The overall expenditure per month fell by about 300 Taka between March and July to 1450 Taka/month primarily due to a decrease in food expenditure. The fall in food expenditure appeared to be linked to increased buying of food on credit and eating gathered food. Food expenditure accounted for between 73% and 75% of total expenditure. Compared with national data 48% of urban households were in the lowest

decile in March increasing to 62% in July. For rural areas the comparable figures were 65% and 81%. Per capita expenditure was little changed between March and July in urban areas with about 20% below 26 Taka/day and close to 40% below 30 Taka/day. For rural areas there was an increase from 63% to 75% below 22 Taka/day and from 73% to 86% based on 26 Taka/day.

9. Difference between income and expenditure: There was a highly significant improvement with households, on average, going from debit to credit (-457 to +30 Taka) between March and July. However much of this improvement was due to the urban area and overall the rural areas remained in debit. In March 80% of urban households were in debit falling to 29% by July. Little change was found in rural areas with a reduction in debit from 63% to 59%.
10. Household food intake and security: There were highly significant improvements in reported food consumption between March and July. Fruit consumption increased from 9% to 42%, eggs from 30% to 48%, fresh fish from 43% to 80% and pulses from 38% to 62% but consumption of poultry and meat still remained low (< 10% of households). In March nearly two thirds of households ate food of lower quality and this fell to just under 50% in July; 1 in 16 adults had gone without food for a day and this fell to 1 in 50. However nearly half of households ate gathered food in July compared with only 20% in March and there was a significant rise in buying food on credit, up from a quarter of households to just over a third.
11. Social Empowerment: 9 out of 10 heads said that they had a plan for improving their living conditions, but male heads were much more confident (38.2%) of being able to implement their plan than female heads (20.0%). When faced with money problems 32.2% said that they would discuss with a neighbour and 30.6% with a relative. Female heads were more likely to consult with a son/daughter or the work owner and less likely to consult with a Mahajan or a friend, than a male head.
12. Asset Transfer: Asset transfer involved animals (cattle, ducks/hen, goat/sheep, pigs and accessories), business support (training, stipend), equipment (rickshaw, sewing machine) and start-up capital. 182 households (48.9% of the sample) received one or more assets and the mean total worth of assets transferred was 9755 Taka per household. All households in NETZ and DSK received assets, 49% in SCF, 30% in PAB, 14% in CARE and 0% in UTTARAN. On average, asset transfers were worth more in NETZ and DSK and least in the other three NGOs. In rural NGOs total worth of assets negatively associated with total cash income and positively associated with total in-kind income. In both rural and urban areas there was no association between total worth of assets and total income. Food, household and total expenditure all negatively associated with total worth of assets but only in rural areas.

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 vulnerability in Bangladesh.

In order to monitor and evaluate socio-economic, empowerment and nutritional change, longitudinal (panel) surveys are being conducted (quarterly and annually) on randomly selected households. Besides these surveys, SHIREE will also be supporting qualitative studies which will focus on key livelihood aspects of extreme poverty. The qualitative studies will provide rich longitudinal data which will be used with the surveys to gain more rounded insights into the choices and constraints facing extreme poor households.

shiree is working with 6 NGOs. 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

This report provides information on the socio-demographic and economic characteristics of households (including household assets, income and expenditure and social empowerment) who were first surveyed in March/April 2010.

July is a time of year in Bangladesh when employment opportunities are enhanced in rural areas, and there is a plentiful supply of mangoes and jack fruit. Harvesting of gourd vegetables (bottle, pointed, rib and bitter) and green chillies also occurs. The Aus rice crop will mature later this year and harvesting has shifted from July/August to August/September. The main agricultural activities include land preparation and transplantation of aman paddy; weeding, pest management and final top dressing of jute, papaya and T-aus; raising of ridges for sugarcane,

earthing-up of bananas and land preparation for early radish and country beans. A negligible amount of paddy crop was damaged but in many areas the plantation of T-aman crop was delayed due to drought caused by insufficient and late rainfall. As a result supplementary irrigation was required which will increase the cost of crop production. Overall the price of rice and other crops was more in July which is problematic for low income households and the purchasing power of agricultural labour worsened from May to June by 17.4%.

2. AIMS OF THE QUARTERLY SURVEYS

Through the quarterly surveys the project aims to determine:-

- (a) seasonal changes in household socio-economic and empowerment status as a result of the shiree 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 quarterly. This study was the first follow-up of the cohort studied in March/April 2010.

4. FIELD WORK

The survey was completed in 4 working weeks in July and early August 2010. A total of 11 people were involved in conducting the survey comprising to three shiree staff members and 8 enumerators.

A trained Bengali 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
- 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

376 households were followed up in the July survey so the attrition rate was 2% (8/384) households. Of these eight households, 6 had moved away permanently, 1 household was temporarily away and 1 household refused to participate further in the panel surveys. Four male heads died between March and July 2010 so the percentage of female heads increased from 40.9% to 41.1%. Four children were born between the surveys and the overall family size remained at 3.3.

5.2 MORBIDITY STATUS

The morbidity status/condition (diarrhoea, fever, cough, skin infection and eye infection) of each family member was ascertained over three time periods, (a) on the day of the survey (b) over the previous 7 days and (c) over the previous 30 days. Information was also obtained on whether family members had passed worms on the day of the survey, and over the previous 7 and 30 days.

Between March and July heads of households generally showed reductions in the prevalence of cough, eye infection and passing of worms but were suffering from more fever on the day of the survey (Table 2). For all adults, children 5 to 15 years of age and under 5 year old children there was less passing of worms and adults showed less cough and eye infections between March and July (Table 3).

In the previous 7 days there were significant reductions in adults of cough, eye infection and passing of worms but worsening of skin infection between March and July. For children 5 to 15 the main finding was reduction in passing of worms and for less than 5 year olds reduction in cough between March and July (Table 4).

Over the previous 30 days in adults showed significant reductions in cough, eye infection and passing of worms, children 5 to 15 years reduction in passing of worms but increase in fever while children under 5 years of age showed no significant differences between March and July (Table 5).

Table 2 Morbidity Status (%) of Head of Household in March and July 2010

Condition	Day of survey			Previous 7 days			Previous 30 days		
	March	July	p	March	July	p	March	July	P
Diarrhoea	1.9	3.2	ns	9.3	9.6	ns	18.9	20.0	Ns
Fever	7.2	12.5	0.012	24.0	24.3	ns	44.8	50.7	Ns
Cough	21.9	9.6	<0.001	27.5	15.2	<0.001	38.4	28.3	0.002
Skin infection	8.5	10.4	ns	8.5	12.5	ns	9.1	12.5	Ns
Eye infection	21.1	4.0	<0.001	22.7	4.0	<0.001	22.9	5.6	<0.001
Passed worms	14.4	1.3	<0.001	17.3	4.8	<0.001	21.2	11.5	<0.001

Table 3 Morbidity Status (%) of all family members on day of the survey in March and July 2010

Condition	All adults			5 -15 year old children			< 5 year old children		
	March	July	p	March	July	p	March	July	P
Diarrhoea	2.0	2.4	ns	0.1	0.3	ns	3.8	5.8	ns
Fever	7.4	9.7	ns	8.8	6.3	ns	10.9	10.9	ns
Cough	16.0	9.1	<0.001	8.2	6.3	ns	16.7	9.0	0.042
Skin infection	6.6	8.0	ns	3.6	1.9	ns	5.8	5.6	ns
Eye infection	17.3	2.9	<0.001	0.1	0.5	ns	1.3	1.3	ns
Passed worms	14.1	1.2	<0.01	16.4	1.4	<0.001	18.6	1.3	<0.001

Table 4 Morbidity Status (%) of all family members in the previous 7 days in March and July 2010

Condition	All adults			5 -15 year old children			< 5 year old children		
	March	July	p	March	July	p	March	July	p
Diarrhoea	8.1	7.6	ns	2.5	3.3	ns	12.2	10.9	ns
Fever	20.3	20.2	ns	17.3	18.9	ns	26.9	25.0	ns
Cough	20.6	11.2	<0.001	12.1	7.7	0.047	26.3	14.7	0.012
Skin infection	6.6	9.3	<0.001	3.8	1.9	ns	6.4	5.8	ns
Eye infection	18.5	3.2	<0.001	1.1	0.3	ns	1.9	3.2	ns
Passed worms	17.2	4.7	<0.001	16.7	3.6	<0.001	19.2	12.2	ns

Table 5 Morbidity Status (%) of all family members in the previous 30 days in March and July 2010

Condition	All adults			5 -15 year old children			< 5 year old children		
	March	July	p	March	July	p	March	July	p
Diarrhoea	15.8	19.1	ns	8.8	10.7	ns	24.4	22.4	ns
Fever	39.8	41.9	ns	31.7	43.0	0.002	50.6	60.3	ns
Cough	29.8	22.2	<0.001	18.9	19.7	ns	39.1	33.3	ns
Skin infection	6.9	9.6	ns	3.8	1.9	ns	7.7	5.8	ns
Eye infection	13.4	4.7	<0.001	1.6	0.5	ns	1.9	3.8	ns
Passed worms	19.7	10.1	<0.001	21.6	10.4	<0.004	22.4	20.5	ns

5.3 EMPLOYMENT

Some of the questions asked about employment changed between March and July in order to obtain information on the extent of advanced sale of labour and the number occupations held by each family member.

Between March and July the number of unemployed heads of households declined from 20 to 13 (Table 6). There were significant changes in the type of employment; for male heads labouring declined while fishing and rickshaw pulling

increased. For female heads begging and domestic service declined and housework and petty trade increased.

Table 6 Main occupations (%) of Heads of Households in March and July 2010

Occupation	Male		Female	
	March	July	March	July
Unemployed	4.8	2.7	5.7	4.3
Labourer	54.2	46.2	24.2	23.6
Rickshaw	15.9	18.8	-	-
Petty trade	9.3	10.3	12.0	14.3
Fishing	4.8	8.5	1.9	3.1
Begging	3.1	2.7	14.6	8.7
Maid	-	-	31.8	23.6
Housework	-	-	5.1	9.9

In July 45% of heads were self employed but there was significant variation ($p < 0.001$) by NGO with about two thirds of DSK and SCF households having self employed heads compared with about a third in the other NGOs (Table 7).

Table 7 Self-employed heads of household by NGO

NGO	% Self employed
CARE	35.5
DSK	69.5
NETZ	30.6
PAB	38.1
SCF	62.1
UTTARAN	36.5
Total	45.0

The average days worked in the last 7, 14 and 30 days were about 4, 8 and 16, respectively. The self employed reported working, on average, for significantly more days than those working for others (employee) by 1 extra day in the last 7 days, 2 extra days in the last 14 days and by an extra 4.6 days in the last 30 days (Table 8).

Table 8 Mean number of days worked by self employed and employee

Time period	Employment status (day worked)		p
	Self	Employee	
Last 7 days	4.2	3.2	<0.001
Last 14 days	8.8	6.8	<0.001
Last 30 days	19.0	14.4	<0.001

Having a number of occupations was quite common (Table 9) with heads of households having the most (up to 5) followed by the 2nd adult (usually spouse).

Table 9 Percentage of household members working by number of occupations in July 2010

Household Member	Occupation (% working)				
	1 st	2 nd	3 rd	4 th	5 th
Head	97	44	11	2	0.3
2 nd Adult	94	28	4		
3 rd Adult	75	16			
4 th Adult	73	13			
5 th Adult	-	-			
1 st Child 5 to 15 years	61	9			
2 nd Child 5 to 15 years	40	-			
3 rd Child 5 to 15 years	14	-			

In total 34 households (8.9%) worked through advanced sale of labour, 25 households involved the head of household, 8 the second adult, and 1 was a child 5 to 15 years of age (Table 10). 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 10 Advanced sale of labour in July 2010

Last 7 days		Last 14 days		Last 30 days		Last 3 months	
Number of households	Range of days	Number of households	Range of days	Number of households	Range of days	Number of households	Range of days
5	1-2	11	2-9	18	1-18	27	1-18

5.4 CASH LOANS AND SAVINGS

Five sources of cash loan were identified (i) free informal (ii) informal loans with interest (iii) interest loans from shomiti (iv) interest loans from microfinance institutions and (v) interest loans from a bank or Government of Bangladesh (Table 11).

The number of households with a loan increased significantly from 130 (34%) to 164 (44%, $p < 0.05$) between March and July mainly due to the increase in free informal and microfinance loans. But the amount of informal and total loans was significantly higher in March than in July 2010.

Table 11 Loans and savings in March and July 2010

Type of Loan	March		July		p
	N	Mean (Taka)	N	Mean (Taka)	
Free informal	73	2765	85	2105	<0.05
Interest informal	58	4589	43	3159	ns
Shomiti	9	3896	8	2975	-
Microfinance	18	4391	26	4409	ns
Bank	8	6090	2	7885	-
Total loans	130	4802	164	2096	<0.001
Cash Savings	150	478	246	802	<0.001

Overall 28% of households had received a microfinance loan in the past, significantly more so by male (40.5%) than female heads (10.3%, $p<0.001$). Just over a quarter of households reported difficulty in repaying the microfinance loan more so in male than female headed households (36.3% versus 9.7%, respectively, $p<0.001$).

There was a significant increase in the number of households with cash savings up from 39% to 64% ($p<0.001$) and the amount of savings increased, on average by over 300 Taka. There was significant variation between NGOs in both the number of households with cash saving and the amount (both $p<0.001$). DSK had the highest percentage of households with cash savings as well as the highest mean whereas UTTARAN had nearly 4 out of 5 households with cash savings but the mean amount saved was nearly the lowest.

Table 12 Cash savings by NGO

NGO	% of households with cash savings	Amount of cash savings (Taka)
CARE	69	441
DSK	89	1789
NETZ	67	227
PAB	39	1660
SCF	42	471
UTTARAN	77	229
Total	64	802

5.5 HOUSEHOLD INCOME

5.5.1 Cash Income

HIES calculated income based on regular cash income only (see Annex 1). In March 2010 the overall mean total household income was 1840 Taka/month and this increased significantly by, on average, 185 Taka to 2021 Taka/month ($p=0.021$) by July 2010 (Table 13) but this overall increase was mainly accounted for by the dramatic increase in income of DSK households (average 2000 Taka/month) and to a lesser in SCF (up by about 350 Taka/month). The pattern of overall increase was not consistent across NGOs with a significant decrease in NETZ intra-household income and also falls in CARE and PAB households.

Table 13 Regular cash income per month (Taka) and per capita Taka income/day in March and July

NGO	Household Income/month			Household/capita/day		
	March 2010	July 2010	p	March 2010	July 2010	p
CARE	2253	2164	ns	22.2	22.2	ns
DSK	2804	4807	<0.001	28.7	43.3	<0.001
NETZ	1496	1119	0.004	18.1	12.6	0.004
PAB	2012	1654	ns	21.1	16.7	0.042
SCF	1090	1444	0.009	11.6	13.9	ns
UTTARAN	1399	1671	ns	14.2	18.3	ns
Total Rural	1653	1613	ns	17.4	16.8	ns
Total	1840	2025	0.021	19.3	21.1	ns

Overall mean per capita income per day was up from 19.3 Taka to 21.1 Taka between March and July but this was not a significant increase. However DSK households increased by 50% between March and July while both NETZ and PAB had significant per capita decreases.

Compared with the national HIES data there was a dramatic decline in urban households in the lowest decile between March and July, from 45% to 15%, whereas in rural households over 50% were still in the lowest decile in both March and July surveys (Table 14).

Table 14 Percentage of households in the lowest decile in March and July 2010

Location	HIES	March		July	
	Monthly income	Monthly income	% in lowest decile	Monthly income	% in lowest decile
Urban	10463	2804	45	4087	15
Rural	6095	1653	54	1613	51

The percentage with per capita income below the thresholds declined considerably in the urban areas between March and July such that only between a fifth and a quarter of households in July were below the threshold (Table 15). In contrast there was little or no change in rural areas and between 70% and 80% were below the threshold.

Table 15 Percentage of households below per capita income thresholds in March and July 2010

Location	March (%)	July (%)
Urban		
<26 Taka (2007 prices)	50	21
<30 Taka (2009 prices)	63	28
Rural		
<22 Taka (2007 prices)	69	70
<26 Taka (2009 prices)	79	81

5.5.2 In-kind income

Households also obtained income in-kind. Table 16 shows that overall there was no significant change in in-kind income between March and July. However NETZ in-kind income increased substantially between March and July. In-kind income accounted for 13% of total income in both March and July, but in NETZ rose to 32% primarily due to increased agricultural, domestic and livestock in-kind income.

Table 16 In-kind income in March and July 2010

NGO	March 2010		July 2010		p
	Mean	% of total income	Mean	% of total income	
CARE	326	13	324	13	ns
DSK	380	12	179	4	ns
NETZ	153	9	517	32	<0.001
PAB	326	14	360	18	ns
SCF	203	16	316	18	ns
UTTARAN	246	15	264	14	ns
Total Rural	251	13	325	17	ns
Total	272	13	301	13	ns

5.6 HOUSEHOLD EXPENDITURE

The overall expenditure of shiree households fell by about 300 Taka between March and July to 1450 Taka primarily due to a decrease in food expenditure of, on average, 275 Taka (Table 17). The reduction in food and total expenditure was

found in all NGOs although more so in CARE, NETZ, PAB and UTTARAN. Per capita expenditure also fell by an average of 4 Taka. Overall expenditure on food accounted for between 73% and 75% of total expenses.

Table 17 Mean expenditure on food, house, and total by NGO in March and July 2010

NGO	Food			House			Total			Per capita		
	March	July	P	March	July	p	March	July	p	March	July	p
CARE	2041	1638	<0.001	317	325	ns	2365	1972	<0.001	23.2	18.6	<0.001
DSK	2127	1953	ns	1609	1470	ns	3705	3660	ns	37.8	39.3	ns
NETZ	1301	997	<0.001	201	186	ns	1502	1184	<0.001	17.6	13.9	0.001
PAB	1990	1434	<0.001	338	362	ns	2337	1817	<0.001	25.0	19.5	0.001
SCF	1432	1425	ns	611	337	ns	2050	1837	ns	28.6	20.2	ns
UTTARAN	1468	1284	0.027	412	264	ns	1915	1602	0.044	20.9	18.1	ns
Total rural	1649	1356	<0.001	375	295	ns	2036	1683	<0.001	23.1	18.0	0.025
Total	1724	1450	<0.001	571	482	ns	2291	1985	<0.001	25.3	21.3	0.047

Compared with national data 48% of urban households were in the lowest decile in March increasing to 62% in July (Table 18). For rural areas the comparable figures were 65% and 81%.

Table 18 Percentage in lowest expenditure decile in March and July 2010

Location	HIES	March	% in lowest decile	July	% in lowest decile
Urban	8533	3705	48	3660	62
Rural	5319	2036	65	1683	81

Based on per capita expenditure there was little change between March and July in urban areas (Table 19) with about 20% below 26 Taka/day and close to 40% below 30 Taka/day. For rural areas there was an increase from 63% to 75% below 22 Taka/day between March and July and from 73% to 86% based on 26 Taka/day.

Table 19 Percentage below Taka thresholds in March and July 2010

Location	March (%)	July (%)
Urban		
<26 Taka (2007 prices)	23	20
<30 Taka (2009 prices)	39	38
Rural		
<22 Taka (2007 prices)	63	75
<26 Taka (2009 prices)	73	86

5.7 DIFFERENCE BETWEEN HOUSEHOLD INCOME AND EXPENDITURE

The difference between household income and expenditure (credit/debit balance) in the month before the survey was calculated for each household and there was a highly significant improvement with households, on average, going from debit to credit (-457 to +30 Taka). However much of this improvement was due to the urban area and overall the rural areas remained in debit (Table 20).

In March 80% of urban households were in debit falling to 29% by July. Little change was found in rural areas with a reduction in debit from 63% to 59%.

Table 20 Difference between reported regular household income and expenditure by NGO

NGO	March Total Income – Total Expenditure	July Total Income – Total Expenditure	p
CARE	-78	+223	ns
DSK	-914	+572	<0.001
NETZ	-6	-65	ns
PAB	-326	-162	ns
SCF	-974	-421	ns
UTTARAN	-501	+76	0.015
Total rural	-375	-69	0.005
Total	-457	+30	<0.001

5.8 HOUSEHOLD FOOD INTAKE

There were highly significant improvements in reported food consumption between March and July. So, for example fruit consumption increased from 9% to 42%, eggs from 30% to 48%, fresh fish from 43% to 80% and pulses from 38% to 62% (Table 21). Consumption of poultry and meat still remained low (< 10% of households).

Table 21 Number of days in the last week that household members consumed foodstuffs

Food	March	July	p
Rice			-
0	0	0	
1	0	0	
2	0	0	
3+	100	100	
Flour			0.026
0	72.5	63.4	
1	10.2	16.8	
2	8.3	12.0	
3+	9.1	7.8	
Pulse			<0.001
0	61.0	37.2	
1	22.5	32.4	
2	10.4	21.1	
3+	6.1	9.4	
Potato			<0.035
0	1.6	2.9	
1	1.6	2.7	
2	6.1	10.2	
3+	90.6	84.2	
Green vegetables			<0.001
0	18.4	7.0	
1	16.0	12.6	
2	29.9	28.3	
3+	35.6	52.1	
Other vegetables			Ns
0	5.3	6.1	
1	4.3	5.9	
2	22.7	21.1	
3+	67.6	66.8	
Fruits			<0.001
0	91.2	57.8	
1	5.9	26.5	
2	1.3	8.6	
3+	1.6	7.2	
Milk			0.006
0	92.0	84.2	
1	5.1	7.2	
2	0.8	3.7	
3+	2.1	4.8	
Eggs			<0.001
0	70.1	52.1	
1	22.5	30.2	
2	4.0	12.6	
3+	3.5	5.1	
Fresh fish			<0.001
0	37.4	19.5	
1	33.4	35.8	
2	17.9	21.7	
3+	11.2	23.0	
Dried fish			ns
0	73.0	77.8	
1	10.7	9.6	
2	9.1	7.0	
3+	7.2	5.6	
Poultry			0.014
0	95.7	91.7	
1	2.9	7.5	
2	0.5	0.3	
3+	0.8	0.5	
Meat			ns
0	90.9	92.2	
1	7.0	5.9	
2	1.3	0.5	
3+	0.8	1.3	

The changes in food consumption (worse, no change, or better consumption) between March and July are summarised in Table 22. There was significant improvement in consumption of flour, pulses, green vegetables, fruits, milk, eggs, fresh fish and poultry, and slightly worse consumption of potato and dried fish. No differences were found for other vegetables and meat consumption.

Table 22 Change in Food consumption (%) between March and July

Food	Better	No change	Worse	Better – Worse	p
Rice	0	100	0	0	-
Flour	25	58	17	+8	<0.025
Pulse	44	40	16	+28	<0.001
Potato	8	78	14	-6	<0.025
Green vegetables	44	34	22	+22	<0.001
Other vegetables	21	55	24	-3	ns
Fruits	39	55	6	+33	<0.001
Milk	14	81	5	+9	<0.001
Eggs	35	52	13	+22	<0.001
Fresh fish	46	33	21	+25	<0.001
Dried fish	13	68	19	-6	<0.05
Poultry	7	90	3	+4	<0.025
Meat	7	84	9	-2	ns

5.9 HOUSEHOLD FOOD SECURITY

There were some significant changes in food strategy between March and July (Table 23). In March nearly two thirds of households ate food of lower quality and this fell to just under 50% in July; 1 in 16 adults had gone without food for a day and this had fallen to 1 in 50 in the July survey. Sending family members elsewhere for food also fell from 1 in 6 to 1 in 10 between March and July. However nearly half of households ate gathered food in July compared with only 20% in March and there was a significant rise in buying food on credit, up from a quarter of households, to just over a third.

Table 23 Food strategy in March and July 2010

Food Strategy	March (%)	July (%)	p
Eat smaller portion	82.9	78.4	ns
Eat < 3 times a day	67.7	71.2	ns
Eat food of less quality	63.7	49.3	<0.001
Eat gathered food	20.0	48.5	<0.001
Eat no food in 24 hours adult	6.4	1.9	0.003
Eat no food in 24 hours child	0.3	0.5	ns
Borrow money to buy food	17.3	18.7	ns
Bought food on credit	26.9	34.9	0.016
Send family member elsewhere for food	16.3	10.9	0.024
Give more food to earning household members	34.7	36.0	ns

5.10 SOCIAL EMPOWERMENT

Household heads were asked if they had a plan to improve their living conditions and 9 out of 10 heads reported that they did have a plan (Table 24). However male heads were much more confident (38.2%) of being able to implement their plan than female heads (20.0%).

Table 24 Plans for improving living condition

Question	Head of Household		p
	Male	Female	
Do you have a plan to improve your living condition? Yes (%)	92.3	89.0	ns
If yes, do you feel able to implement it?			<0.001
No	13.2	17.4	
Yes	38.2	20.0	
Uncertain	40.9	51.6	

Households were also asked an open ended question on where they went for help when facing money problems or other difficulties. Up to five answers were given with most providing 2 answers.

Table 25 Which people were consulted when facing money problems

Consulted	Head of Household		p
	Male	Female	
Chairman	5.9	8.7	<0.001
Brother/sister	8.6	10.0	
Shopkeeper	7.0	5.0	
Neighbour	32.4	32.3	
Doctor	3.1	2.7	
Member	5.7	5.7	
Mahajan	4.6	1.3	
Local elite	2.0	1.0	
Parent	6.6	3.7	
Relative	13.4	11.7	
Son/daughter	1.8	7.0	
NGO	4.6	5.0	
Friend	2.0	0.3	
Rich man	0	0.3	
Money lender	1.5	1.0	
Samity	0.7	0	
Work owner	0.4	4.3	

Of the 757 answers 32.2% said that they would discuss with a neighbour and 30.6% with a relative (brother, sister, parent, son or daughter) followed by chairman and shopkeeper (Table 25). Female heads were more likely to consult with a son/daughter or the work owner and less likely to consult with a Mahajan or a friend, than a male head.

5.11 ASSET TRANSFER

Table 26 presents details on the 17 different types of assets received. Households received only a cow or a sewing machine and only 1 household received 2 rickshaws while 2 households received more than 1 goat/sheep.

Table 26 Mean and range of assets transferred

Asset	Mean	Range
Cattle	1	1
Cattle accessories	5.8	4-7
Duck/hen	5.1	4-12
Seedlings	5.3	1-6
Goat/sheep	1.2	1-3
Goat/sheep accessories	9.1	9-10
Pig	1.8	1-2
Training	1.2	1-2
Business	1.5	1-9
Stipend	5.2	3-12
Rickshaw	1.1	1-2
Rickshaw accessories	18	18
Sewing machine	1	1
Start-up capital	1	1
Agriculture	5.3	5-6
Fishing	1	1
Taka input	4	4

On average, 9755 Taka have been transferred to 182 (48.9%) households (Table 27), but there was considerable variation between NGOs in the percentage of households receiving assets. No households in UTTARAN had received any assets while 14% had in CARE, 30% in PAB, 49% in SCF, and 100% in both DSK and NETZ.

There was no significant difference in total worth of assets between male and female headed households (9,322 and 10,177 Taka, male and female headed respectively). There were highly significant differences between NGOs in the worth of assets transferred ($p < 0.001$) with the highest amounts in NETZ and DSK and the least in the other three NGOs.

Table 27 Number of households receiving assets and their worth 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	-	-	-	-	62	11498	-	-	8	9476	-	-	70	11267
Cattle accessories							5	13228					5	13228
Duck/hen					47	556			5	3536			52	842
Seedlings					62	32							62	32
Goat/sheep					14	1772			2	3192			16	1950
Goat/sheep accessories							5	8908					5	8908
Pig							4	1400					4	1400
Training			4	400									4	400
Business	8	6320	42	8385			1	9387	6	5833			57	7844
Stipend			18	3567									18	3567
Rickshaw	1	6000	15	11891					2	8332			18	11168
Rickshaw accessories							2	3347					2	3347
Sewing machine			1	6940					3	6625			4	6704
Start-up capital			3	3000									3	3000
Agriculture							6	4229					6	4229
Fishing									2	4400			2	4400
Taka input									6	1200			6	1200
Total	9	6284	61	10037	62	12448	19	8018	31	5884	-	-	182	9755

In the combined urban and rural sample and in the urban sample alone there were no significant associations between total cash income, total in-kind income and overall income with total worth of assets. However, in rural areas there was a significant ($p=0.007$) negative association between total worth of assets and total cash income (for each 100 Taka increase in assets cash income decreased by 15 Taka), and a significant ($p=0.016$) positive association between total worth of assets and in-kind income (for each 100 Taka in assets, in-kind income increased by 5.1 Taka). There was no significant association between overall income and total worth of assets.

There were highly negative associations between food, household and total expenditure and total worth of assets only in rural areas. Each 100 Taka increase in worth of assets was associated with a reduction in food expenditure by 4.7 Taka ($p=0.003$), household expenditure of 3 Taka ($p=0.002$) and total expenditure of 7.7 Taka ($p=0.001$). No significant associations between expenditure and asset worth were apparent in the urban areas.

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.