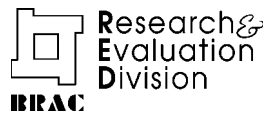


# An Early Assessment of CFPR II Support Packages

Narayan Chandra Das  
Wameq Azfar Raza  
Farzana Akter Misha



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E-mail: [research@brac.net](mailto:research@brac.net)  
Telephone: (88-02) 9881265-72, 8824180-7 (PABX)  
Fax: (88-02) 8823542, 8823614  
Website: [www.brac.net/research](http://www.brac.net/research)

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# Abstract

Based on the programmatic lessons and research knowledge accumulated from CFPR phase I, CFPR phase II was designed to expand its outreach while incorporating greater diversity in support packages. The support packages of CFPR phase II are primarily divided into two: specially targeted ultra poor (STUP) and other targeted ultra poor (OTUP). STUP and OTUP packages were further disaggregated into STUP 1 and 2 and OTUP 1 and 2. This paper presents an early assessment of the performance of the CFPR phase II support packages. For STUP 1 assessment, a randomized control trial (RCT) method was used. For STUP 2 and OTUP 1 and 2 packages, the assessment was conducted by comparing old and new cohorts. STUP 1 package was found to have significant positive impacts on livelihoods of the participating households. Evidence shows that as a result of programme participation, the STUP 1 households experienced an increase in farm self-employment for both males and females, diversification of income sources, increase in per capita income and food expenditure, and increase in saving behaviour. STUP 2 and OTUP 1 and 2 packages, assessed using the same method, were also found to have positive impacts on livelihoods of the participating households although the dimensions and magnitude of impacts varied within the packages. Effectiveness of OTUP 2 package was found to be the lowest amongst these three packages. This is, however, expected as OTUP 2 package is significantly less intensive than the STUP 2 and OTUP 1. On the other hand, the efficacy of the STUP 2 and OTUP 1 packages was found to be quite similar despite the STUP 2 package being more intensive of the two. The STUP 2 households, as was found in this study, experienced loss of livestock and poultry due to hurricane Sidr, which might have slowed down the effectiveness of this package.

# Introduction

Bangladesh has made considerable progress in reducing poverty. Since the early nineties the rate of poverty has been decreasing steadily by more than one percentage point per annum. Despite this notable progress in poverty reduction, proportion of population living below the poverty line still remains quite high – according to HIES 2005 (BBS 2007) 40% of the country’s population are poor and about one quarter of the population is ultra or extreme poor. Furthermore, the rate of poverty reduction has been found to be disproportionate across the geographic locations of Bangladesh. For example, during 2000-2005, proportion of rural poor in Dhaka and Chittagong divisions decreased from 55.9 to 39% and from 46.3 to 36% respectively, whereas, during the same period, the proportion decreased from 55.1 to 54% in the Barisal division. On the other hand, rate of poverty in Khulna division increased marginally (46.4% in 2000 and 46.5% in 2005). Among the poverty reducing interventions in Bangladesh, microfinance is perhaps the most well-known one. However, despite its extensive coverage throughout the country, representation of the poorest in microfinance remains low (Sulaiman and Matin 2008; Razzaque and Rahman, 2000). Bangladesh also has a comprehensive portfolio of social safety net interventions for the poor through transfers although it is far less than the amount required to reach all poor households.<sup>1</sup> Ahmed *et al.* (2007) show that there are currently 27 safety net programmes operating in Bangladesh. However, most of these safety net programmes have the inherent handicap of insufficient duration of time in terms of operation to have tangible affects. Additionally, these transfers often fail to reach the poorest of the poor.

Addressing extreme poverty thus remains a key challenge for Bangladesh. This challenge influenced BRAC to initiate a programme for the extreme poor known as Challenging the Frontiers of Poverty Reduction (CFPR). The first phase of the CFPR programme was initiated in 2002 for five years (2002-2006) with the goal of lifting the ultra poor out of poverty in a sustained manner. Based on the

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<sup>1</sup> According to World Bank (2006) poverty eradication in Bangladesh only through investment in social assistance would require about 35% of public expenditure. However, the actual rate of investment in social protection in 2004 was only about 5% of public expenditure.

programmatic lessons and research knowledge<sup>2</sup> acquired from CFPR phase I (hereafter called CFPR I), the second phase of the programme (hereafter called CFPR II) was designed to expand the levels of outreach, and incorporated diversity in support packages.

The support packages of CFPR II are primarily divided into two: package for the specially targeted ultra poor (STUP) and package for the other targeted ultra poor (OTUP). The STUP and OTUP packages were then further disaggregated into STUP 1, STUP 2, OTUP 1 and OTUP 2. Details of these four packages are discussed later. Research and evaluation is an integral component of CFPR as per its original design. For evaluation of STUP packages, a comprehensive baseline survey was conducted in 2007 which is being repeated during July-December, 2009. On the other hand, a baseline survey for OTUP was also conducted in 2008 and will be repeated in 2010.

This study aims to provide an early assessment of all four support packages delivered by CFPR II with about one year of programme experience by the beneficiaries. More specifically, the objectives of the study are to analyze impacts of the support packages on: (i) employment and income, (ii) food security, (iii) vulnerability, (iv) legal and social awareness, and (v) financial and physical assets.

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<sup>2</sup> For details of impact assessments of CFPR I see Rabbani *et al* (2007) and Ahamed *et al* (2009).

# Overview of CFPR II

As mentioned earlier, the support packages delivered by CFPR II target two broad groups of ultra poor- STUP and OTUP. While CFPR I covered 15 districts with 100,000 STUP beneficiaries, CFPR II has been expanded to include 41 districts with 360,300 STUP and 500,000 OTUP households. As mentioned earlier, the STUP and OTUP components have been further disaggregated into STUP 1, STUP 2, OTUP 1 and OTUP 2. STUP 1 package is being implemented in 20 districts with highest density of poverty, and STUP 2 in addition to OTUP 1 and 2 are being implemented in the next 21 poorest districts. The main difference between STUP and OTUP is that microfinance is the main entry point for both the OTUP models, while STUP participants receive comprehensive support including, among others, assets and weekly stipend so that they could build up an asset base and subsequently participate in the mainstream development activities.

## Selection of beneficiaries

Targeting is a key component CFPR not only because of the high costs of inclusion error but also to create a sense of ownership and fairness among the community members. To be eligible for STUP membership, a household needs to meet three of the five predetermined criteria (Table 1). Selection criteria for both STUP 1 and STUP 2 are similar. But as mentioned earlier, STUP 1 package was designed for the ultra poor in the poorest 20 districts while the STUP 2 package was designed for the ultra poor in the next 21 poorest districts of Bangladesh. To be eligible for OTUP 1 membership a household needs to fulfill at least four of the five criteria shown in Table 1 while for OTUP 2 membership a household needs to fulfill three of the five criteria. However, if a household does not have an active female member is excluded despite meeting the inclusion criteria as only women are eligible for CFPR support who need to take care of the assets provided by the programme or on which they are likely to invest<sup>3</sup>.

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<sup>3</sup> In the CFPR I, three exclusion criteria were used—(i) household does not have an active female member; (ii) any of the household members is participating microfinance; and (iii) household is enjoying any intervention from other development programmes. The first criterion used in CFPR I is also followed in CFPR II; however, for the second and third criteria some modification has been made because learning from CFPR I was that those who were participating microfinance and eventually excluded from CFPR were later on found to be remained very inactive in microfinance. Therefore, in the

At the initial stage of the STUP selection process, a geographical targeting method is followed. Based on the poverty and vulnerability mapping by the World Food Programme (WFP) (BBS and WFP 2004), the poorest districts and sub-districts were initially identified. Within each sub-district, further geographical selection was carried out in consultation with field level BRAC staff, who have in-depth knowledge about the locality. During the second stage, a wealth ranking exercise is carried out and households of the bottom wealth ranks are called community defined ultra poor. The community defined ultra poor are then re-checked against the inclusion and exclusion criteria. A final round of verification is carried out by high level BRAC staff to arrive at a final list of households for programme supports.

OTUP participants are the ultra poor women who may or may not have been associated with BRAC VOs (Village organizations) or other NGO programmes. They are selected as OTUP participants either because they have dropped out from conventional microfinance programmes, or because they have been identified by BRAC field staff as being unable to make adequate use of the full range of services and inputs available to them, due to extreme poverty and/or lack of confidence and experience. Aside from the ultra poor from former and current BRAC VO members, the OTUP also includes other disadvantaged ultra poor women in the community.

During the initial selection process of OTUP, with the assistance from BRAC VO members and others from locality, a list of ultra poor households is prepared. BRAC Programme Organizers (PO) then conduct a door to door survey of the listed households using a standard questionnaire to check whether the households meet the eligibility criteria, and prepare a list of the primarily selected households. BRAC Area Managers then visit all the primarily selected households for a final round of verification and produces the final list of OTUP participants.

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second phase inclusion of this group of households is carefully scrutinized as regards size of outstanding loans, length of inactiveness in microfinance etc.



**Table 1. Inclusion criteria of different CFPR beneficiary groups**

STUP	OTUP
The household owns less than 10 decimals of land	The household owns no more than 30 decimals of land
The household is dependent upon female domestic work or begging	Abandoned, separated or divorced
No male adult active members in the household	Husbands are disabled or infirm
Children of school going age have to take paid work	Dependent on seasonal wage employment
No productive assets in the household	Unable to make productive or effective use of NGO services.

### **Intervention package**

The support packages for the STUP and OTUP participants are shown in Table 2. Enterprise development training of the participants includes a 3-5 days classroom-based training followed by regular monthly refresher courses. Enterprise development training planned for the STUP participants include poultry rearing, livestock rearing, vegetable cultivation, horticulture nursery, and non-farm activities. For the OTUP participants, enterprise development training includes goat rearing, cow rearing, poultry rearing, beef fattening, vegetable cultivation, and small business. All the STUP participants and a proportion of the OTUP 1 participants, based on their vulnerability and needs, are eligible for subsistence allowance. The goal of the subsistence allowance is to smooth consumption and compensate for the time beneficiaries spend nurturing the income generating activities (IGAs) until they start yielding. Although the amount of subsistence allowance was initially Tk. 15 per day for STUP 1 and Tk. 10 per day for STUP 2 and OTUP 1, it was later on increased to Tk. 25 for all the three groups. As mentioned earlier, all the OTUP 1 participants are not eligible for subsistence allowance; for initial cohort of the programme (2007 cohort) 50% of the OTUP 1 participants were provided with subsistence allowance and for 2008 cohort the proportion was increased to 80%.

For social development of the STUP participants, a committee known as *Gram Daridra Bimochon Committee* (GDBC) representing the local elites is formed. The idea of GDBC is to mobilize the local elite support for the ultra poor and to provide security of the assets transferred to the ultra poor. All four target groups are provided with social, legal and political awareness training. In the event of severe illness BRAC provides free medical treatments for all members of the participant households. Length of STUP 1 and 2 and OTUP 1 support packages is two years, while for OTUP 2 package it is one year.

**Table 2. Intervention package for different beneficiary groups**

STUP 1	STUP 2	OTUP 1	OTUP 2
<ul style="list-style-type: none"> <li>• Enterprise development training</li> </ul>	<ul style="list-style-type: none"> <li>• Enterprise development training</li> </ul>	<ul style="list-style-type: none"> <li>• Enterprise development training</li> </ul>	<ul style="list-style-type: none"> <li>• Enterprise development training</li> </ul>
<ul style="list-style-type: none"> <li>• Assets transfer ranging from Tk. 6000-Taka 12,000</li> </ul>	<ul style="list-style-type: none"> <li>• Asset transfer of average Tk. 6,000</li> </ul>	<ul style="list-style-type: none"> <li>• Soft loans from BRAC's microfinance with repayment as per cash flow</li> </ul>	<ul style="list-style-type: none"> <li>• Loan from BRAC's microfinance</li> </ul>
<ul style="list-style-type: none"> <li>• *Subsistence allowance of Tk 15 per day with duration tailored to reflect personal and enterprise characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• *Subsistence allowance of Tk 10 per day with duration tailored to reflect personal and enterprise characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• *Subsistence allowance of Tk. 10 per day with duration tailored to reflect personal and enterprise characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• Staff to member ratio of 1:300</li> </ul>
<ul style="list-style-type: none"> <li>• Staff to member ratio of 1:100.</li> </ul>	<ul style="list-style-type: none"> <li>• Staff to member ratio of 1:150</li> </ul>	<ul style="list-style-type: none"> <li>• Staff to member ratio of 1:200</li> </ul>	<ul style="list-style-type: none"> <li>• Health subsidy</li> </ul>
<ul style="list-style-type: none"> <li>• Health subsidy</li> </ul>	<ul style="list-style-type: none"> <li>• Health subsidy</li> </ul>	<ul style="list-style-type: none"> <li>• Staff to member ratio of 1:200</li> </ul>	<ul style="list-style-type: none"> <li>• Social development support</li> </ul>
<ul style="list-style-type: none"> <li>• Social development support</li> </ul>	<ul style="list-style-type: none"> <li>• Social development support</li> </ul>	<ul style="list-style-type: none"> <li>• Health subsidy</li> </ul>	<ul style="list-style-type: none"> <li>• Social development support</li> </ul>
		<ul style="list-style-type: none"> <li>• Health subsidy</li> </ul>	
		<ul style="list-style-type: none"> <li>• Social development support</li> </ul>	

\*Subsistence allowance was increased to Tk. 25 per day since 2008.

# Methods

For evaluation of STUP 1, a baseline survey was conducted in 2007 using a randomized control trial (RCT) method. The randomization was conducted at the branch office level. Of the 40 branch offices where the baseline survey was carried out in 2007, 20 branches were designated as treatment areas while the remaining 20 branches were control areas. For this study, a sub-sample of the households of RCT baseline of STUP 1 was repeated. From each branch office, four spots (PRA) were selected randomly from which only the finally selected ultra poor households were re-visited in October-November 2008.<sup>4</sup> This sub-sample contained 690 households (385 treatment households and 305 control households). A panel dataset was then constructed using two rounds of survey data. Analysis was conducted using difference-in-difference (double difference) technique.

For STUP 2 and OTUP 1 and 2, the assessment was conducted by comparing old and new cohorts (2007 and 2008 cohorts). Given the fact that the same selection criteria were used when the programme was scaled up, presumably the economic conditions of the old and new cohorts would be same if they did not participate the programme. Households of the new cohort are those who have recently started participating the programme and so it is likely that they might not have experienced any impact (if any, it is little) of the programme. Therefore, the difference between old and new cohorts in various outcome variables is expected to be due to programme impacts on the old cohort.

However, robustness of the analysis by comparing old and new cohorts would depend on whether the two groups had the same socioeconomic characteristics when they joined the programme. To check this, some baseline characteristics of the old and new cohorts of the three beneficiary groups have been analyzed (Annex 1). During the interview, the respondents were asked to recall a few socioeconomic characteristics before their participation in the programme. Annex 1 reveals that the baseline profile of the old and new cohorts was almost similar for each beneficiary group. For STUP 2, one indicator shows statistically

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<sup>4</sup> In the baseline, all the spots (PRAs) from each office were considered for survey. And from each spot, all the ultra poor households, 10% among the rest of the households and one additional household from richest group were selected for the survey.

significant difference between old and new cohorts. In the case of OTUP 1, two indicators (land holding and earning member) show statistically significant difference between old and new cohorts. For these two characteristics the new cohort is better-off than the old cohort. For OTUP 2, only one indicator shows statistically significant difference between old and new cohorts.

However, for some outcome variables (such as savings, awareness, etc) the new cohort may experience an impact despite their recent participation in the programme. In such cases, using old and new cohort impact may not be accurately estimated. Thus, this remains a key limitation of this study.

For STUP 2, among the *upazilas* where both 2007 and 2008 cohorts were selected for programme support, 20 *upazilas* were randomly selected. Then from each *upazila*, one branch office with the 2008 cohort and one branch office with the 2007 cohort were selected randomly. From each branch office selected for 2007 cohort, six spots (PRA) were randomly selected. On the other hand from each branch office selected for 2008 cohort the last six PRAs were selected to represent that the comparison group had recently participated the programme. From each PRA all the finally selected households were surveyed. Total sample size for STUP 2 was 919 households (442 households from old cohort and 477 from new cohort).

Similar sampling techniques were employed for OTUP 1 and OTUP 2 but the primary sampling unit was branch office. Initially, among the branches where both 2007 and 2008 cohorts were selected for programme support, 20 branches were randomly selected for survey. For 2007 cohort, five VOs were randomly selected from each branch office and then from each VO four beneficiary households were surveyed. However, for 2008 cohort, from each branch 20 members who were the latest participants were selected for survey to represent that the 2008 beneficiaries recently participated in the programme. The total sample size for OTUP 1 was 705 households (330 from 2007 cohort and 375 from 2008 cohort), and for OTUP 2 sample size was 794 households (395 from old cohort and 399 from new cohort).<sup>5</sup> The survey was conducted in October-November 2008.

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<sup>5</sup> Although total sample size for each cohort was expected to be 400 households, while cleaning the data wrong recordings were deleted, and consequently the sample size has fallen below 400 households.

# Results and Discussion

As mentioned earlier, the method used for STUP 1 assessment is different from that used for STUP 2 and OTUP assessments. As a result, the findings of the STUP 1 assessment may not be comparable to that of the STUP 2 and OTUP assessments. Furthermore, geographical locations of the packages being implemented are related to comparability of the effectiveness of different packages. STUP 1 package is being implemented in the poorest 20 districts whereas STUP 2 along with OTUP packages are being implemented in the next 21 poorest districts. Considering all those factors, the results and discussion section is divided into two: impacts of the STUP 1 package and impacts of the STUP 2 and OTUP packages.

## **Impacts of STUP 1 Package**

### *Employment and income (STUP 1)*

#### Primary occupation of the working-aged members (STUP 1)

Table 3 provides primary occupations of the working-aged (15-60 years) males of STUP 1. Annex 2 provides details of the analysis with statistical significance. Table 3 and Annex 2 show that farm self-employment has increased for working-aged males. This is expected because as a result of programme participation livestock and poultry holding increased significantly among the STUP 1 households which will be discussed later. Farm self-employment analyzed here includes, among others, livestock and poultry rearing. Table 3 also shows that before programme participation, working-aged males were predominantly employed in agricultural wage labouring while farm self-employment was limited. There is evidence of falling working-aged males being at school which may be due to increase in intra household demand for labour as a result of promotion of income generating activities. Table 3 also reveals that the non-farm wage employment of the working-aged males has increased as a result of programme participation. Increase in non-farm wage employment may be because of the role of GDBC, that is likely to provide various kinds of supports

to the beneficiary households.<sup>6</sup> When we look into the primary occupation of the working-aged females, it appears that as a result of programme participation, farm self-employment has increased significantly (Table 4 and Annex 3). Difference-in-difference for proportion of working aged women engaged in household chores was found to be negative. However, the negative impact on household chore was because of increasing this activity among the control women.

**Table 3. Primary occupation of the working-aged (15-60 years) males of the STUP 1 households**

	Baseline (2007)		Follow-up (2008)	
	Treatment	Control	Treatment	Control
Farm self-employment (%)	3.2	1.7	7.3	1.6
Farm wage employment (%)	56.6	50.3	51.5	51.6
Non-farm self-employment (%)	20.4	22.4	23.9	25.3
Non-farm wage employment (%)	2.9	7.3	4.3	2.1
Non-farm salaried employed (%)	5.7	3.9	3.7	3.6
Student (%)	2.5	1.1	1.3	4.1
Don't work (%)	5.7	8.9	6.0	6.2
Begging (%)	2.2	2.8	2.0	5.7
No. of observations	279	179	301	194

**Table 4. Primary occupation of the working-aged (15-60 years) women of the STUP 1 households**

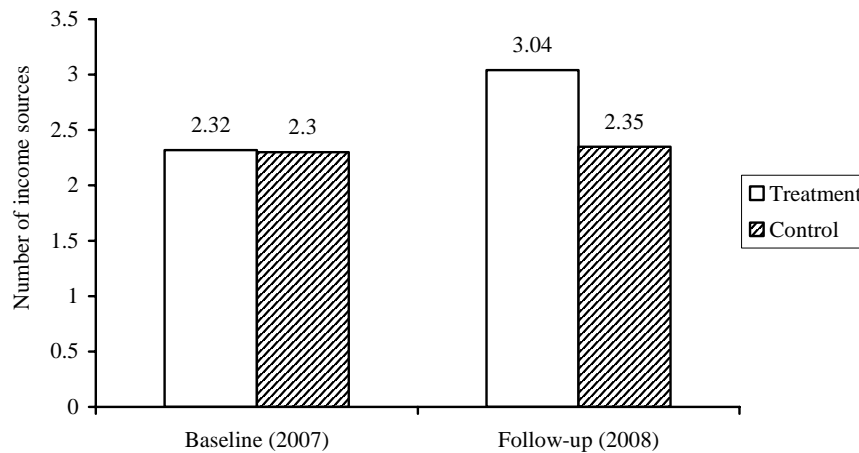
	Baseline (2007)		Follow-up (2008)	
	Treatment	Control	Treatment	Control
	(1)	(2)	(4)	(5)
Farm self-employed (%)	0	0.6	13.8	1.4
Farm wage employment (%)	8.8	13.1	6.5	10.5
Non-farm self-employment (%)	5.1	5.7	2.5	6.0
Non-farm wage employment (%)	1.4	4.5	0.7	1.7
Non-farm salaried employed (%)	2.8	0.6	2.2	0.9
Student (%)	2.6	1.8	1.6	1.7
Don't work (%)	2.1	1.5	0.9	1.4
Begging (%)	2.6	3.9	2.9	3.7
Household chores (%)	53.7	40.8	54.6	50.1
Working as maid (%)	21.1	27.7	14.4	22.5
No. of observations	432	336	449	351

<sup>6</sup> Gulesci (2009) showed that GDBC provided supports to the CFPR households, including employment opportunities. However, to know whether increase in non-farm wage employment was due to GDBC's role, we need to analyze the employment dynamics of CFPR households in detail. Information at this level was not available in the present study. Further studies can look into this issue in detail.

### Sources of income (STUP 1)

Sustained livelihood improvement of the ultra poor is one of the key objectives of the CFPR programme. Diversification of income sources is important in promoting sustainable livelihood improvements. Since the programme transfers assets to the STUP beneficiaries preceded by training on income generating activities (IGAs), it is expected that this would have a positive impact on income source diversification. The analysis of income sources reveals that programme participation had significant positive impacts on diversification of income source of the STUP 1 households (Fig. 1). In 2007, the treatment and control households, on average, had 2.32 and 2.30 income sources respectively. In 2008, number of income sources increased to 3.04 for treatment households and 2.35 for control households. The double difference (or impact) was found to be positive and it is statistically significant at 1% level (Annex 4).

**Figure 1. Income sources of the STUP 1 households**

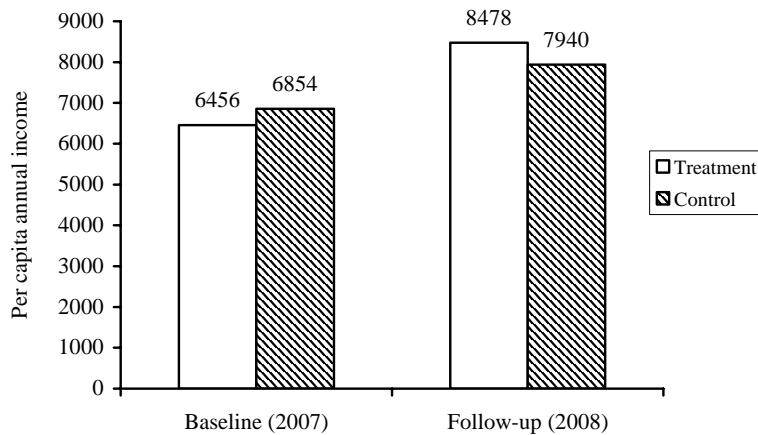


### Per capita income (STUP 1)

Figure 2 provides per capita income of the STUP 1 households and Annex 5 provides details of the impact analysis. Since analysis was conducted using two rounds of survey data (baseline in 2007 and follow-up in 2008), per capita income was expressed at constant prices (2008 constant prices) using the rural consumer price index. It has been found that beneficiary households have experienced an increase in per capita income as a result of programme participation. In 2007, per capita income of the treatment households was Tk. 6,456 which increased to Tk. 8,478 in 2008. The corresponding figures for the control households were Tk. 6,854 and Tk. 7,940 respectively. The double difference (impact) was found to be statistically significant at 5% level (Annex

5). The increase in real per capita income due to programme participation was found to be 15% (Annex 5).

**Figure 2. Per capita income of the STUP 1 households**



**Food security (STUP 1)**

Table 5 provides food consumption (% of households consumed the key food items and mean days of consumption) of the surveyed households for the last week of survey (Annex 6 reports details of the analysis with statistical significance). Analysis was conducted using cross section data of 2008. The data was collected using a recall method for the last seven days of the survey. We find that a higher proportion of treatment households consumed most of the food items compared to their control counterparts (Table 5). For most of the food items studied difference between treatment and control households is positive and statistically significant (Annex 6). Mean days of consumption of the most of the food items were also found to be higher for treatment households.

Analysis of food consumption using mean days of consumption provides important insights with regard to food security of the households, but it is unlikely to indicate to what extent food security had changed among the households. Analysis of calorie intake or food expenditure is helpful to understand such insights. We have analyzed per capita food expenditure for the last one week using cross section data of 2008.<sup>7</sup> Figure 3 provides per capita total food expenditure while Annex 7 shows food item specific per capita expenditures. Figure 3 shows that as a result of programme participation, households experienced an increase in per capita food expenditure; while for

<sup>7</sup> Per capita food expenditure analyzed here is not adult equivalent.

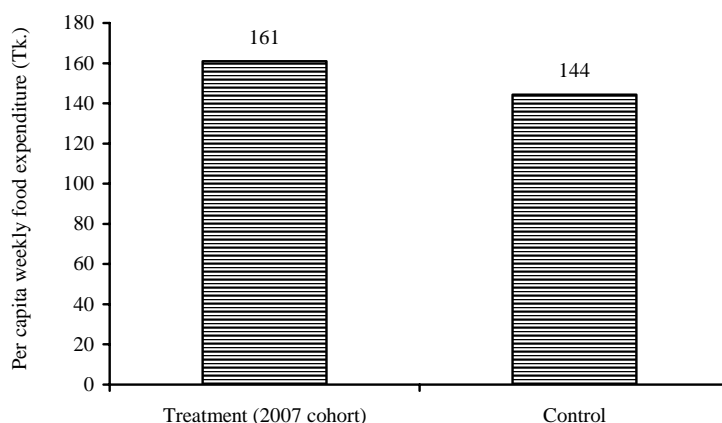


control households per capita weekly food expenditure was Tk. 144, for treatment households it was Tk.161 (12% higher compared to control households). Food item-specific analysis shows that positive impact on food expenditure was observed for most of the food groups including, among others, lentil, animal protein and oil (Annex 7).

**Table 5. Food consumption (frequency) of the STUP 1 households**

	Treatment (2007 cohort)	Control
% of household consumed the food items in the last week of survey conducted in 2008		
Rice	100	99
<i>Ata</i> (wheat)	5	5
<i>Dal</i> (lentil)	69	50
Green vegetable	98	96
Potato	86	79
Egg	86	79
Fish	89	83
Chicken	10	5
Milk	8	2
Mean days of consumption of the food items in the last week of survey conducted in 2008		
Rice	6.9	6.9
<i>Ata</i> (wheat)	0.2	0.1
<i>Dal</i> (lentil)	1.4	0.9
Green vegetable	4.0	3.9
Potato	2.6	2.0
Egg	0.8	0.4
Fish	2.3	2.0
Chicken	0.1	0.1
Milk	0.2	0.0
No. of observations	385	305

**Figure 3. Per capita food expenditure (Tk. per week) of the STUP 1 households**



A regression analysis has been carried out to analyze the determinants of per capita food expenditure. The independent variables include per capita income, household size, and a dummy variable on female headship and cultivable land holdings. Since our interest is to analyze the factors associated with per capita food expenditure, only one group of households (treatment households) was considered. If both groups were included in the regression, there might need to include a dummy variable for treatment; however in such a case, the treatment dummy variable would be highly correlated with per capita income. Because, as discussed earlier, programme participation had significant positive impact on per capita income of the households. However, the regression analysis reveals that per capita income is significantly and positively associated with per capita food expenditure, which is expected (Table 6). Household size was found to be negatively associated with per capita food expenditure of the households. It is more likely that there would be child (ren) in the large households. And since per capita food expenditure is not adult equivalent here, the low per capita food expenditure for large households is probably expected.

**Table 6. Determinants of per capita food expenditure of the STUP 1: OLS regression results**

*Dependent variable: log of per capita food expenditure*

Regressors	Coefficient	t-value
Log per of capita income	0.075**	2.24
Household size	-0.133***	-10.95
Female headed household=1	-0.015	-0.36
Household has cultivable land=1	0.026	0.35
Constant	4.31***	18.24
No. of observations	385	
F-value	53	
Prob>F	0.00	
R-square	0.35	

Note: \*\*\* denote statistically significant at 1% level

### ***Vulnerability (STUP 1)***

In this section, incidences and crisis the households faced in the last one year have been analyzed. Predictably, crisis and shocks have direct impact on household welfare. These direct effects of shocks have been well documented in the empirical literature. According to Calvo and Dercon (2007) the multidimensionality of poverty has fuelled the importance of uncertainty since the feeling of insecurity, uncertainty and defencelessness can seriously diminish the current wellbeing and risk taking behaviour.

Table 7 provides crisis and incidences the STUP 1 households faced in the last one year of the survey and Annex 8 presents details of the impact analysis with statistical significance. It is evident that as a result of programme participation,

households experienced an increase in loss of livestock/poultry due to natural disaster. In the baseline, 17% of the treatment households experienced loss of livestock/poultry and for control households this proportion was 20%. In follow-up survey, 47% of the treatment and 33% of the control households experienced such loss. Increase in loss of livestock/poultry among the beneficiary households is not surprising because after programme participation, households' livestock/poultry holdings increased significantly. Impact assessment of CFPR phase I also found similar results as regards loss of livestock/poultry (Rabbani et al. 2007). For other incidences, we did not find any statistically significant impact (Annex 8). In the baseline percentage of households faced house damage was 7% for treatment and 2% for control. Corresponding proportions in 2008 were significantly high although the double difference (or impact) was found to be statistically insignificant (Annex 8). In 2008, many of the coastal areas of Bangladesh experienced hurricane Sidr; however, the STUP 1 survey sites were not from severe Sidr affected areas, indicating that the STUP 1 households probably faced some other aggregate shocks.

**Table 7. Incidence of specific crisis or events faced in the last one year by the STUP 1 households**

	(% of households)			
	Baseline (2007)		Follow-up (2008)	
	Treatment	Control	Treatment	Control
House damage	6.8	2.0	29.1	22.3
Illness of the earning member	12.2	15.1	21.3	19.0
Illness of other member	10.6	8.5	6.2	4.6
Loss of crops	1.0	0.7	1.1	1.0
Death of earning member	0.5	1.6	0.5	0.7
Death of other member	0.0	0.7	0.3	0.4
Marriage of the hh member	0.8	1.0	2.1	1.0
Livestock/poultry loss due to natural disaster	16.8	20.0	47.3	32.5
No. of observations	385	305	385	305

### ***Health and sanitation (STUP 1)***

Illness of the household members may have severe consequences such as falling into poverty traps or may act as a barrier to come out of poverty due to the loss of income and incurring health-related expenses. Table 8 provides health-seeking behaviour, health expenses and work days loss due to illness (Annex 9 provides details of the impact results with statistical significance). It was found that programme participation helped the households increase medical expenditure. In 2007, average medical expenditure for each sick person of the treatment households was Tk. 76 which increased to Tk. 264 in 2008 (Table 8). On the other hand, for control households average medical expenditure increased from Tk. 71 to Tk. 165 during 2007 and 2008. The double difference (impact) was

found to be positive and statistically significant at 1% (Annex 9). As regards treatment-seeking behavior we did not observe statistically significant impacts.

CFPR beneficiary women receive awareness raising training on, among others, proper use of sanitary latrine. CFPR programme also provides sanitary latrine to the beneficiary households, indicating that the increase in sanitary latrine (if any) among the beneficiary households can be, at least partly, attributable to programme transfers. However, analysis of sanitary latrine holding shows that due to programme participation sanitary latrine ownership significantly increased among the STUP 1 households (Table 9 and Annex 10). While in the baseline (2007) 56% of the treatment households had own sanitary latrine, in the repeat survey (2008) the proportion increased to 86%. Among the control households the proportions were 53% in 2007 and 47% in 2008. Knowledge on the use of sanitary latrine has also dramatically increased among the beneficiary women.

**Table 8. Health seeking behaviour of the STUP 1 households**

	Baseline (2007)		Follow up (2008)	
	Treatment	Control	Treatment	Control
No treatment (%)	27	23	11	11
Traditional (%)	4.6	2.4	6.6	7.2
Village doctors (%)	31	37	38	33
Alopathic drug seller (%)	25	24	13	20
Qualified (%)	6	6	20	20
Homeopathic (%)	4	4	3	7
Others (%)	2.9	2.8	7.7	1.8
Medical exp (Tk.) in last 15 days (mean)	76	71	264	165
Loss of working days in last 15 days	6.4	6.5	7.3	8.5
No. of observations	247	370	55	90

**Table 9. Sanitation condition of the STUP 1 households**

	Baseline (2007)		Follow up (2008)	
	Treatment	Control	Treatment	Control
Have sanitary latrine (% hh)	56	53	86	47
Know how to use sanitary latrine (% of respondent women)	73	74	81	50
No. of observations	385	305	385	305

### ***Social and legal awareness (STUP 1)***

One of the objectives of the CFPR is to raise awareness on social and legal issues among the beneficiary women. Through awareness raising, the beneficiary women are expected to be confident about their rights and have the courage to

stand out in a crowd to establish it which consequently will reduce their deprivation. For the purpose of analyzing awareness, a score was calculated using nine indicators (Table 10 and Annex 11). The double difference of mean score has been found to be positive and statistically significant (Annex 11), indicating that programme participation had positive impacts on awareness of the beneficiary women. Indicator-specific analysis also reveals that for all the indicators the double differences (or impact) are positive and statistically significant.

**Table 10. Social and legal awareness among the STUP 1 women**

	Baseline (2007)		Follow-up (2008)	
	Treatment	Control	Treatment	Control
Know legal age of marriage for male (%)	10.9	14.4	50.4	25.6
Know legal age of marriage for female (%)	34.3	34.8	74.6	47.9
Know about punishment for giving/taking dowry (%)	5.2	1.6	18.7	3.9
Know correct divorce laws (%)	5.5	3.0	16.9	7.5
Know after how many days divorce is official (%)	47.6	66.7	78.5	56.5
Know voting age (%)	16.1	16.1	55.1	43.6
Know how to distribute assets among sons and daughters (%) (for Muslims only)	26.4	30.2	50.1	36.0
Heard about BRAC Legal Aid Clinic (%)	4.68	3.93	44.9	7.5
Know about the facilities at legal aid clinic (%)	22.2	50.0	36.4	17.4
Mean score (%)	10.2	10.0	31	15
No. of observations	385	305	385	305

### *Assets (STUP 1)*

#### Physical asset (STUP 1)

As mentioned earlier, CFPR transfers assets to the STUP households including, among others, livestock, poultry, and nursery. Therefore, programme participation of the STUP households may have positive effect on asset holdings which is, at least partly, attributable to programme transfer. Analyzing the physical asset holding of the STUP 1 households similar results have been found, as expected (Table 11 and Annex 12). Proportion of treatment households with livestock, poultry and rickshaw/van holding has increased during 2007-2008 (Table 11) and the double differences are statistically significant (Annex 12). If we look into the size of assets, it was found that the number of hen/duck holding by the treatment households increased by 2.3 due to programme participation (Annex 12).

**Table 11. Asset holdings of the STUP 1 households**

	Baseline (2007)		Follow-up (2008)	
	Treatment	Control	Treatment	Control
<b>% of households own asset</b>				
Cow/bull	6.5	3.9	40.7	5.9
Goat/sheep	8.6	11.5	65.9	40.0
Hen/duck	45.2	47.8	55.3	40.7
Shop	0.8	0.7	2.1	1.0
Boat	0.8	0.3	0.5	0.0
Net	3.4	1.6	2.8	1.6
Rickshaw/van	2.3	1.3	5.5	0.0
<b>Size of asset</b>				
Cow/bull	1.2	1.2	1.3	1.3
Goat/sheep	2.4	1.7	2.3	2.0
Hen/duck	1.8	2.2	3.2	1.3
Shop	1.0	1.0	1.0	1.0
Boat	0.0	0.0	0.0	0.0
Net	1.0	1.0	1.2	1.4
Rickshaw/van	1.0	1.0	0.0	0.0
No. of observations	385	305	385	305

Housing condition (STUP 1)

Housing condition is one of the important indicators in understanding economic condition of the households. An improvement in economic condition of the poor induces them to spend more on fulfilling their basic needs including housing. Table 12 provides housing condition of the treatment and control households for 2007 and 2008 (Annex 13 provides details of the impact results with statistical significance). It has been found that STUP 1 households have improved their housing conditions through participating in the programme. In 2007, average value of house of the treatment households was Tk. 4,044 which increased to Tk. 4,419 in 2008. On the other hand, average value of the house of the control households decreased from Tk. 3,925 to Tk. 3,225 during the same period. Although average value of housing has increased, we do not observe significant impact on the ownership of the house and on having separate kitchen – the double difference was found to be statistically insignificant (Annex 13).

**Table 12. Housing condition of the STUP 1 households**

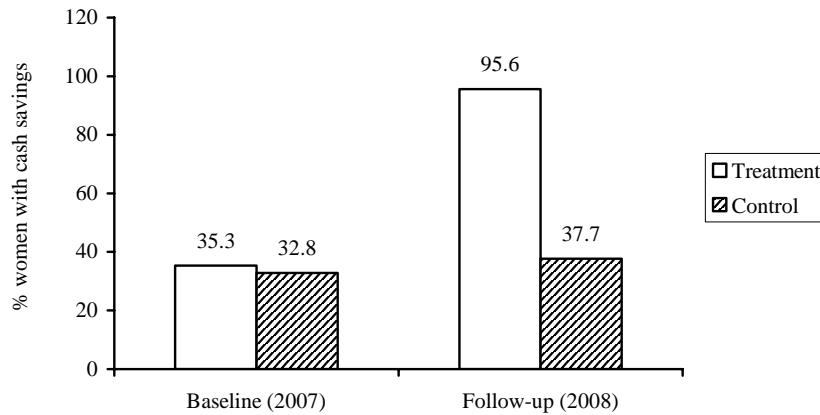
	Baseline (2007)		Follow up (2008)	
	Treatment	Control	Treatment	Control
	(1)	(2)	(4)	(5)
Own house (% hh)	89	92	94	94
Value of the house (if own house) (Tk.)	4044	3925	4419	3225
Have separate kitchen (% hh)	44	40	46	40
Have electricity connection (% hh)	4	2	9	10
No. of observations	385	305	385	305

**Financial asset (STUP 1)**

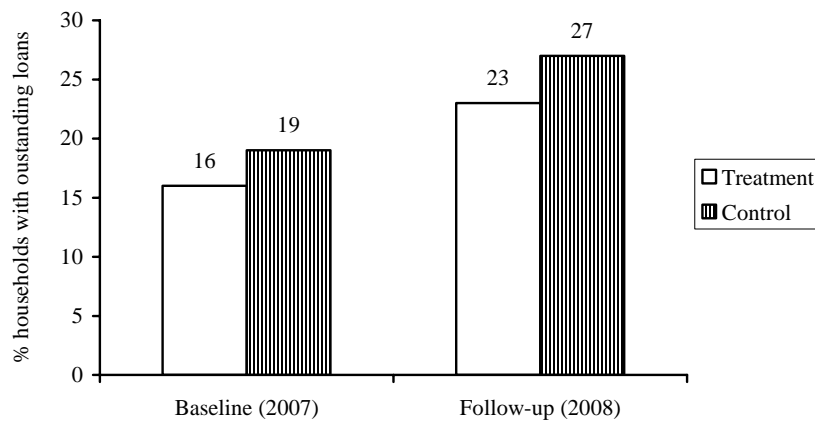
Saving is vital for capital formation and crisis coping. The women start saving immediately after their participation in the programme. Analysis of saving behaviour reveals that due to programme participation, the STUP 1 women experienced remarkable increase in saving behaviour (Figure 4 and Annex 14). In 2007, 35% of the women of the treatment women and 33% of control women had cash savings while the corresponding proportions in 2008 were 96% and 38% (Fig. 4). Therefore, as a direct impact of programme participation, 55% of the women had cash savings (Annex 14).

Access to credit is crucial for coping with unexpected crises and smooth consumption during a shock or lean period. It is also important for capital formation to initiate or expand income generating activities. CFPR aims to integrate the ultra poor households in mainstream development activities; after two years' extensive support, the STUP beneficiaries are eligible to take loans from BRAC microfinance. Analyzing outstanding loans, it was found that in the baseline 16% of the treatment households and 19% of the control households had outstanding loans while the corresponding proportions in 2008 were 23% and 27% respectively (Fig. 5). However, double difference in proportion of households with outstanding loans has been found to be statistically insignificant (Annex 15). When the survey was conducted the STUP beneficiaries did not graduate to microfinance. Therefore, an increase in outstanding loans of the STUP participants may not be likely.

**Figure 4. Percentage of the STUP 1 women with cash savings**



**Figure 5. Percentage of the STUP 1 households with outstanding loans**



**Impact of STUP 2 and OTUP packages**

***Employment and income (STUP 2 and OTUP)***

**Primary occupations of the working-aged members (STUP 2 and OTUP)**

Table 13 provides impacts on primary occupations of the working-aged (15-60 years) males (Annex 16 provides details of the analysis with statistical significance). Similar to STUP 1, farm self-employment has been found to have increased for STUP 2 males — a higher proportion of old cohort of STUP 2 males were engaged in farm self-employment. However, it is noticeable that the



non-farm wage employment has increased and farm wage employment decreased for STUP 2 working-aged males indicating that there was a shift from farm wage employment to non-farm wage employment. As mentioned earlier, non-farm wage employment has increased for STUP 1 males as well; however, to ascertain whether this change is attributable to the role of the GDBC's needs further analysis. However, when we look into the primary occupation of the OTUP 1 and 2 working-aged males, we do not observe any significant difference between old and new cohorts (Annex 16).

**Table 13. Primary occupation of the working-aged (15-60 years) males of the STUP 2 and OTUP households**

	STUP 2		OTUP 1		OTUP 2	
	Old cohort (2007)	New cohort (2008)	Old cohort (2007)	New Cohort (2008)	Old cohort (2007)	New cohort (2008)
Farm self-employment (%)	13.7	6.4	8.8	8.1	8.8	10.5
Farm wage employment (%)	25.7	35.1	19.4	20.5	25.8	25.8
Non-farm self-employment (%)	28.6	31.5	45.0	45.9	42.6	42.0
Non-farm wage employment (%)	19.7	10.3	10.6	6.7	6.3	6.6
Non-farm salaried employed (%)	2.9	3.6	2.3	3.6	2.7	3.4
Student (%)	3.2	5.6	6.2	6.8	5.7	3.6
Don't work (%)	3.8	6.2	7.2	8.3	7.8	8.1
Begging (%)	2.5	1.3	0.5	0.2	0.4	0.0
No. of observations	315	390	387	516	477	469

Note: New chort (2008) was used as comparison group

Predominance of household chores as primary occupation among the women in Bangladesh is well known. However, it is apparent that as a result of programme participation, proportion of working-aged women engaged in household chores as primary occupation has decreased for STUP 2 and OTUP 1 (Table 14 and Annex 17). On the other hand, farm self-employment has increased for all three groups of working-aged women. For OTUP 2, there is evidence of falling farm wage employment. In other words, for OTUP 2 women, increase in farm self-employment was associated with a fall in farm wage employment. There is evidence of falling proportion of OTUP 1 women being at school. This might be due to an increase in intra- household demand for labour as a result of promoting IGA among them.

**Table 14. Primary occupation of the working aged (15-60 years) women of the STUP 2 and OTUP households**

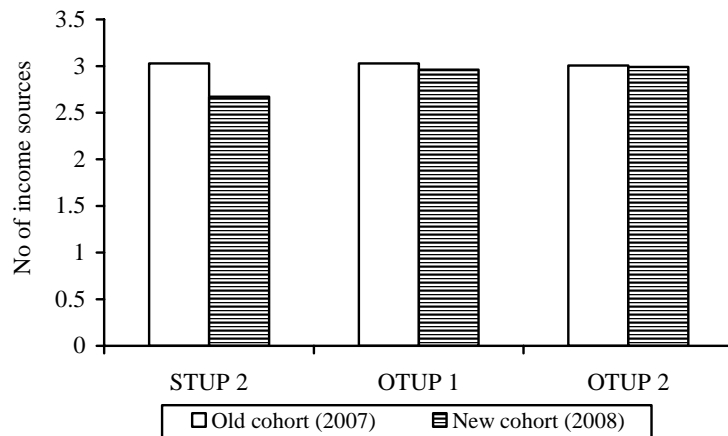
	STUP 2		OTUP 1		OTUP 2	
	Old cohort (2007)	New cohort (2008)	Old cohort (2007)	New cohort (2008)	Old cohort (2007)	New cohort (2008)
Farm self-employed (%)	12.1	5.5	14.4	4.7	8.8	5.8
Farm wage employment (%)	1.1	0.4	0.2	0.6	1.2	3.4
Non-farm self-employment (%)	3.3	4.8	12.1	9.2	14.4	13.3
Non-farm wage employment (%)	4.2	3.0	2.3	3.0	2.2	0.6
Non-farm salaried employed (%)	2.2	1.8	1.6	1.7	1.0	1.6
Student (%)	2.2	3.0	2.1	4.9	4.2	3.6
Don't work (%)	1.3	1.6	1.6	1.6	2.4	2.2
Begging (%)	2.2	1.1	0.5	0.5	0	0
Household chores (%)	56.6	64.1	58.4	71.1	64.3	68.4
Working as maid (%)	14.8	14.7	6.7	2.7	2.1	1.2
No. of observations	546	563	430	534	499	503

**Note:** New cohort (2008) was used as comparison group

#### Sources of income (STUP 2 and OTUP)

As mentioned earlier, STUP beneficiaries receive assets from programme indicating that there might be positive impact on income source diversification of the STUP 2 households. Unlike the STUP, the OTUP women get IGA training followed by taking loans from BRAC to invest in those specific IGAs, indicating that the OTUP members may diversify their income sources eventually. It appears from Figure 6 that STUP 2 households diversified their income source due to programme participation. The old cohort of STUP 2 had more income sources compared to the new cohort and the difference is statistically significant at 1% level (Annex 18). However, no significant impact was observed on income source diversification of the OTUP households (Annex 18). The difference in number of income sources between old and new cohorts for both OTUP 1 and 2 has been found to be insignificant. However, it is noticed that the income sources of the OTUP participants remained well diversified before their participation in the programme; the new cohorts of both OTUP 1 and OTUP 2 had, on average, close to three income sources.

**Figure 6. Income sources of the STUP 2 and OTUP households**

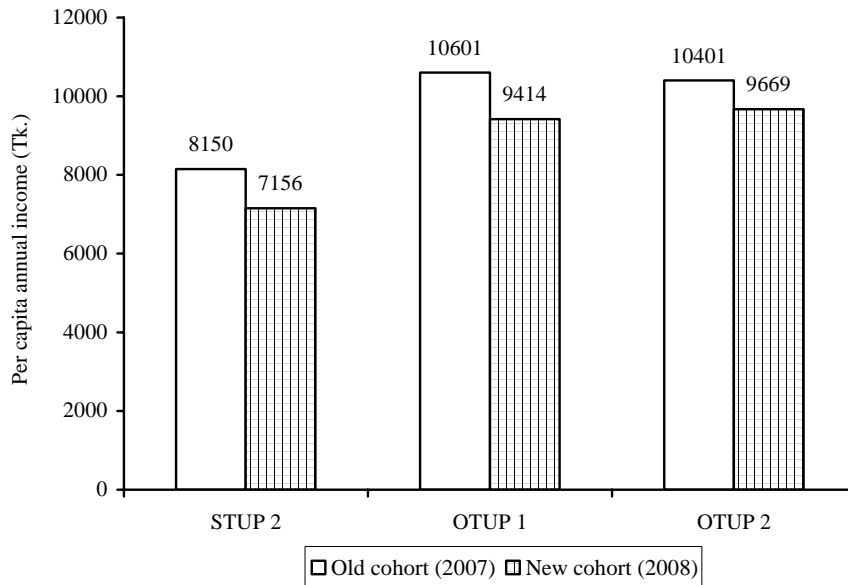


Note: New cohort (2008) was used as comparison group

Per capita income (STUP 2 and OTUP)

Figure 7 provides per capita income of the STUP 2 and OTUP households and Annex 19 provides details of the impact analysis with statistical significance. Figure 7 reveals that old cohorts of three beneficiary groups had higher per capita income. The differences are statistically significant (Annex 19) indicating that programme had positive impacts on per capita income of each of the three beneficiary groups. In percentage terms the impact on per capita income seems to be lower for OTUP 2 than the other two groups (Annex 19); this is expected as OTUP 2 is the least intensive package among the three. Percentage increase in per capita income appears to be quite similar for STUP 2 and OTUP 1 although the support package for STUP 2 is more intense than that of the OTUP 1. As will be discussed later in this study STUP 2 households experienced loss of livestock and poultry due to hurricane Sidr which might negatively affect their income growth. Figure 7 also shows that per capita income of the new cohort of STUP 2 was lower than that of the new cohorts of both OTUP 1 and OTUP 2, which is expected because OTUP households are those who are ultra poor but relatively better-off than the STUP households. Although the OTUP households have not diversified their income sources due to programme participation, as discussed earlier, they experienced an increase in per capita income, probably indicating that the OTUP households have made their income sources more secured than what was before programme participation.

**Figure 7. Per capita income of the STUP 2 and OTUP households**



Note: New cohort (2008) was used as comparison group

***Food security (STUP 2 and OTUP)***

Table 15 provides food consumption (% of households consumed the key food items and mean days of consumption in the last week). Annex 20 shows the detailed results with statistical significance. Impact on food consumption of the STUP 2 households seems to be positive. A higher proportion of the old cohort of STUP 2 consumed lentil and egg, although fish consumption was higher for the new cohort (Table 15). If we look into food consumption of the OTUP 1 households, it appears that a higher proportion of the old cohort consumed green vegetable and milk but a higher proportion of the new cohort consumed fish. However, for OTUP 2 we did not observe significant difference in food consumption between old and new cohorts – all the differences for proportion of households consumed the item in the last week as well as mean days of consumption were found to be statistically insignificant (Annex 20).

However, analysis of per capita food expenditure reveals that old cohorts of all the three beneficiary groups had higher per capita food expenditure compared to the new cohorts (Fig. 8 and Annex 21). This indicates that increase in income of the households as a result of programme participation translated into their food security. Analysis of food item-specific expenditure shows that positive impact on per capita food expenditure of the STUP 2 households was due to an increase

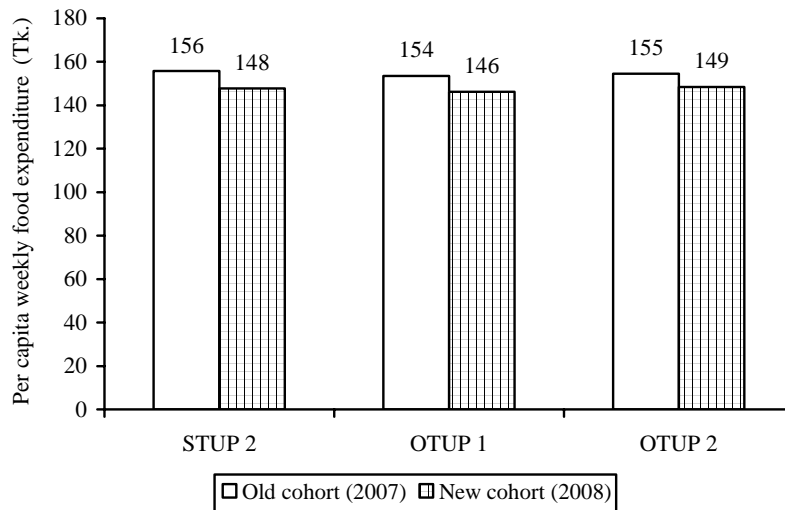
in consumption expenditure towards cereal, lentil and animal protein (Annex 21). On the other hand, positive impact on per capita food expenditure for the OTUP 1 households was due to increase in expenditure on edible oils and *other* items whereas for OTUP 2 households, it was due to the increase in expenditure mainly on fruits and animal protein.

**Table 15. Food consumption of the STUP 2 and OTUP households in the last one week**

	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
% of household consumed the items in the last one week of survey conducted in 2008						
Rice	100	100	100	100	100	100
<i>Ata</i> (wheat)	2	1	13	9	6	6
<i>Dal</i> (lentil)	79	67	87	90	72	75
Green vegetable	98	98	98	96	98	96
Potato	84	84	95	95	86	86
Egg	31	21	25	29	37	37
Fish	81	87	82	87	90	90
Chicken	5	6	6	6	8	7
Milk	4	4	8	5	7	5
Mean days of consumption of the items in the last week of survey conducted in 2008						
Rice	7.0	7.0	7.0	7.0	6.9	7.0
<i>Ata</i> (wheat)	0.1	0.1	0.5	0.3	0.2	0.1
<i>Dal</i> (lentil)	1.7	1.4	2.3	2.7	1.6	1.7
Green vegetable	3.5	3.9	3.7	3.4	3.6	3.5
Potato	2.4	2.2	3.5	3.6	3.3	3.3
Egg	0.6	0.3	0.4	0.5	0.7	0.7
Fish	1.9	2.2	1.9	2.4	2.4	2.4
Chicken	0.1	0.1	0.1	0.1	0.1	0.1
Milk	0.1	0.1	0.3	0.2	0.3	0.2
No. of observations	442	477	330	375	395	399

Note: New cohort (2008) was used as comparison group

**Figure 8. Per capita weekly food expenditure (Tk.)**



Note: New cohort (2008) was used as comparison group

A regression analysis was carried out to understand the determinants of per capita food expenditure. The regressors are the same as those included in regression analysis for STUP 1. However, here the regression analysis was carried out by taking together of STUP 2, OTUP 1 and OTUP 2 households (only old cohort). However, two dummy variables (OTUP1 and OTUP2) were introduced to capture the differences in per capita food expenditure among the groups. In many female headed households there is no male member and many of the female headed households are single member households indicating that proportion of female members are higher among the female headed households. It is often observed that the females take less food than the males in Bangladesh; and if such happens, per capita food expenditure may be lower for female headed households. Therefore to capture this, a dummy variable on female headship as well as its interaction with OTUP 1 and OTUP 2 dummy variables were included in the model.

The regression analysis reveals that expectedly per capita income is positively associated with per capita food expenditure (Table 16). Household size was found to be negatively associated with per capita food expenditure. As mentioned earlier, it is more likely that there would be child (ren) in the large size households. And since per capita food expenditure is not adult equivalent here, the low per capita food expenditure for large households is probably expected. Dummy variable female 'headed household' was found to be statistically

insignificant but its interaction with OTUP 2 dummy variable was found to be statistically significant with negative sign. This means that female headed households of OTUP 2 are likely to spend less on food compared to the male headed households indicating that the females of OTUP 2 households take less food than the males. This may not be unlikely because not only an economic issue but also awareness may be responsible for low food intake by the women. However, per capita food expenditure has been found to be higher for those households who have cultivable lands than those who do not, indicating that own production of food is likely to raise per capita food intake for STUP 2 and OTUP households.<sup>8</sup>

**Table 16. Determinants of per capita food expenditure of the STUP 2 and OTUP households: OLS regression results**

	Coefficient	t-value
Log of per capita income	0.041 ***	2.86
Household size	-0.085***	-14.08
Female headed household=1	0.024	0.76
Household has cultivable land=1	0.068**	2.04
OTUP1=1	0.075***	2.77
OTUP 2=1	0.098***	3.76
OTUP1*female headed household	-0.065	-1.30
OTUP2*female headed household	-0.0171***	-3.76
Constant	4.919 ***	35.67
No of observations	1160	
F-value	36	
Prob>F	0.00	
R-square	0.20	

Note : \*\*\* and \*\* denote statistically significant at 1% and 5% level respectively.

#### ***Vulnerability (STUP 2 and OTUP)***

Table 17 provides crisis and incidences the STUP 2 and OTUP households faced in the last one year of the survey (Annex 22 shows details of the analysis with statistical significance). It is evident that as a result of programme participation, STUP 2 and OTUP 1 households experienced an increase in loss of livestock/poultry due to natural disaster. Compared to the new cohorts, a higher proportion of the old cohorts of STUP 2 and OTUP 1 experienced a loss of livestock/poultry due to natural disaster (Table 17). Increase in loss of livestock among the STUP 2 and OTUP 1 is not surprising as programme enrolment raised the livestock/poultry holding of these two groups of households which will be discussed later in this study.

<sup>8</sup> It should be noted here that the per capita food expenditure is inclusive of value of consumption from own production.

Many of the survey sites of STUP 2 assessment were from Sidr-affected areas. Figure 9 provides percentage of the STUP 2 households that experienced livestock/poultry loss due to natural disasters, disaggregated by hurricane Sidr-affected areas. It appears that a higher proportion of the households from Sidr-affected areas experienced loss of livestock/poultry. It should be noted here that the programme responded promptly by providing second round supports to the beneficiary households affected by Sidr. Furthermore, although Jhalokati district was not initially included among the CFPR II intervention areas, later on it was included as part of the CFPR II coverage areas as this district was severely affected by hurricane Sidr.

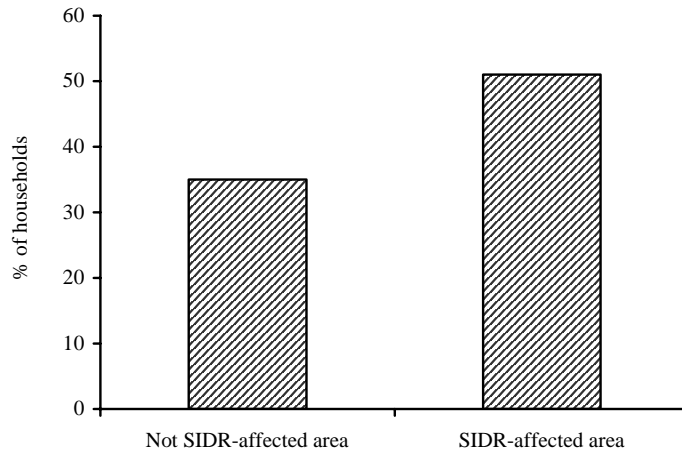
**Table 17. Incidence of specific crisis or events faced by the STUP 2 and OTUP households in the last one year**

	(% of households)					
	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
House damage	36	39	21	23	36	38
Severe illness of earning member	16.7	13.4	10.1	8.21	9.87	7.52
Severe illness of other member	8.6	8.0	9.7	9.5	3.0	4.0
Loss of crop due to natural disaster	1.58	0.42	1.82	5.47	5.06	6.52
Death of an earning member	0.45	0.63	0.61	0.21	1.27	0.25
Death of other member	0.23	0.42	0.00	0.21	0.51	0.25
Marriage in the household	0.68	1.05	3.33	2.11	2.28	1.75
Loss of livestock/poultry due to natural disaster	56.56	32.08	35.45	24.63	33.16	36.6
No. of observations	442	477	330	375	395	399

Note: New cohort (2008) was used as comparison group



**Figure 9. Loss of livestock/poultry due to natural disaster in hurricane Sidr-affected areas of STUP 2**



***Health and sanitation (STUP 2 and OTUP)***

Analysis of health impacts reveals that the OTUP beneficiaries experience changes in health-seeking behaviour due to programme participation (Table 18 and Annex 23). For OTUP 1, a smaller proportion of sick members of old cohort had sought health cares from traditional sources. Among the OTUP 2, proportion of members not seeking any treatment has also decreased as a result of programme participation. As for medical expenditure and loss of working days due to illnesses, we did not observe significant differences between old and new cohorts of the three beneficiary groups.

It was found that the STUP 2 and OTUP 1 and 2 households experienced an increase in sanitary latrine holdings, although this is not surprising as the CFPR programme provides these facilities to the participant households (Table 19 and Annex 24). A higher proportion of old cohorts of three beneficiary groups was found to own sanitary latrine. Knowledge on how to use sanitary latrine has also improved among the OTUP 1 women but such change was not observed among the STUP 2 and OTUP 2 women.

**Table 18. Health seeking behaviour of the STUP 2 and OTUP households**

	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
No treatment (%)	6	10	17	18	8	20
Traditional (%)	8	6	8	15	28	11
Village doctors (%)	24	28	30	27	41	43
Allopathic drug seller %)	17	14	24	16	5	3
Qualified (%)	30	31	12	13	15	11
Homeopathic (%)	6	4	3	0	0	1
Others (%)	10	7	7	10	3	10
Medical exp (Tk.) per sick person in last 15 days (mean)	325	527	233	320	344	384
Loss of working days in last 15 days	8.33	8.60	6.93	7.21	7.35	7.15
No. of observations	84	81	103	99	75	87

Note: New cohort (2008) was used as comparison group

**Table 19. Sanitary latrine and its use by the STUP 2 and OTUP members**

	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
Have sanitary latrine(% hh)	79	64	75	70	82	77
Know how to properly use sanitary latrine (% of respondent women)	77	75	74	64	81	78
No. of observations	442	477	330	375	395	399

Note: New cohort (2008) was used as comparison group

### ***Social and legal awareness (STUP 2 and OTUP)***

For analyzing social and political awareness, a score was estimated using nine indicators. It has been found that programme participation had significant positive impact on awareness of the beneficiary OTUP 1 women; mean score was found to be higher for old cohort of OTUP 1 (Table 20 and Annex 25). Indicator-specific analysis shows that for OTUP 2 women there is no significant difference between the old and new cohorts except for the case of correct divorce laws. For correct divorce law, a higher proportion of the old cohort was found to know the correct divorce law. However, for the OTUP 2 women (for both the old and new cohorts), the level of awareness was found to be notably high.

**Table 20. Awareness among the STUP 2 and OTUP women**

	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
Know legal age of marriage for male (%)	47	42	29	41	75	77
Know legal age of marriage for female (%)	79	74	69	77	84	84
Know about punishment for giving/taking dowry (%)	20	15	8	4	51	55
Know correct divorce laws (%)	19	15	6	4	46	39
Know after how many days divorce is official (%)	74	72	85	61	89	90
Know voting age (%)	67	72	72	73	77	77
Know how to distribute asset among sons and daughters (%) (for muslims only)	47	53	47	43	62	63
Heard about BRAC legal aid clinic (%)	41	41	49	30	63	65
Know about the facilities in Legal aid clinic (%)	40	44	60	39	75	77
Mean score (%)	31	30	27	24	50	53
No. of observations	442	477	330	375	395	399

Note: New cohort (2008) was used as comparison group

### ***Assets (STUP 2 and OTUP)***

#### **Physical asset (STUP 2 and OTUP)**

Table 21 provides asset holdings of the STUP 2 and OTUP households and Annex 26 presents details of the impact analysis with statistical significance. Table 21 shows that the proportion of the STUP 2 households with livestock, poultry, mobile phone and rickshaw/van holdings was higher among the old cohort. However, unlike the STUP 1, the increase in asset holding of the STUP 2 households may not be attributable to programme transfer as the new cohort (used as comparison group) also received programme support. For OTUP 1 and 2 households, the evidence of impact on asset holding was found to be mixed.

**Table 21. Asset holdings of the STUP 2 and OTUP households**

	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
<b>% of households own the asset</b>						
Cow/bull	19	6	48	53	40	46
Goat/sheep	25	11	30	25	35	33
Hen/duck	57	43	68	69	76	83
Shop	0.22	0.21	1.5	3.5	4.05	2.25
Boat	0.67	0.21	1.8	1.47	1.8	2.25
Rickshaw/van	13	6	12	18	13	17
Mobile Phone	11	3	8	12	8	2
<b>Size of the asset</b>						
Cow bull	1.23	1.33	1.32	1.22	1.53	1.57
Goat sheep	1.59	2.62	2.25	1.91	2.12	2.19
Hen duck	5.73	5.86	5.76	6.36	5.77	4.62
Shop	1.00	1.00	1.00	1.00	1.00	1.00
Boat	1.00	1.00	1.00	1.00	1.14	1.00
Rickshaw/van	1.00	1.00	1.00	1.05	1.11	1.04
Mobile Phone	1.75	1.53	2.10	1.60	2.00	1.27
No. of observations	442	477	330	375	395	399

Note: New cohort (2008) was used as comparison group

#### Housing condition (STUP 2 and OTUP)

As previously mentioned, housing condition is one of the important indicators in understanding economic condition of the households. Table 22 provides housing conditions and Annex 27 presents details of the analysis with statistical significance. It was found that for percentage of households with own house, value of house, and households having separate kitchen there is no significant difference between old and new cohorts. But it was found that a higher proportion of old cohort of the OTUP 1 had electricity connection.

**Table 22. Housing condition of the STUP 2 and OTUP households**

	STUP 2		OTUP 1		OTUP 2	
	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)	Old Cohort (2007)	New Cohort (2008)
	(1)	(2)	(4)	(5)	(7)	(8)
Have own house (% hh)	93	94	94	95	95	95
Value of the house (if own house) (Tk.)	5291	5347	10900	11749	9193	8456
Have separate kitchen (% hh)	58	60	75	77	58	54
Have electricity connection (% hh)	9	10	31	25	13	15
No. of observations	442	477	330	375	395	399

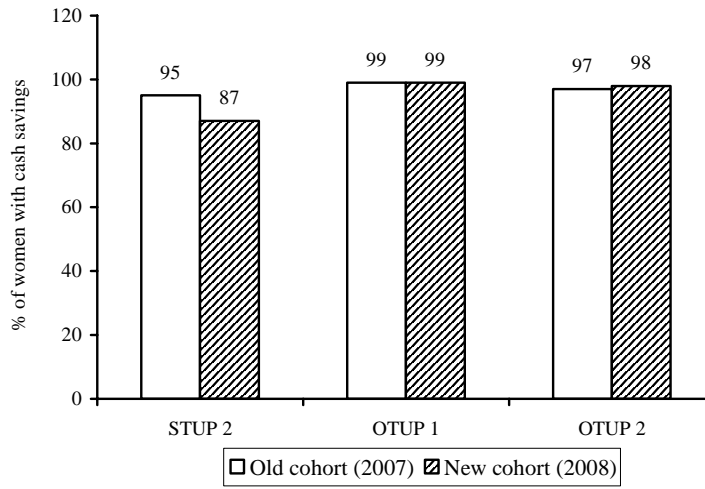
Note: New cohort (2008) was used as comparison group

#### Financial asset (STUP 2 and OTUP)

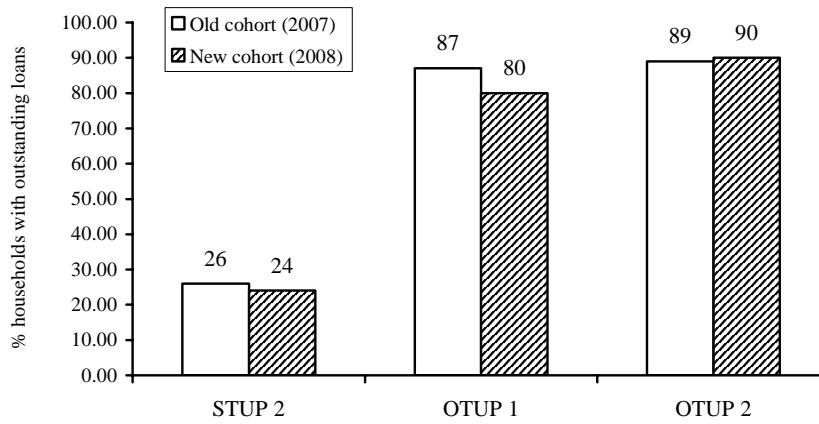
Savings is vital for potential business capital and for crisis coping. Analyzing saving behaviour it was found that a higher proportion of the women of old cohort in STUP 2 had cash savings compared to the new cohort (Fig. 10) and the difference is statistically significant (Annex 28). For OTUP 1 and 2, difference between proportions of women with cash savings of the old and new cohorts was found to be statistically insignificant (Annex 28). It should be mentioned here that the CFPR beneficiary women start to save immediately after programme participation indicating that the beneficiary women of new cohorts also started to save when they were surveyed. Therefore, impact on saving behaviour of the STUP 2 and OTUP women, which was analyzed comparing old and new cohorts, is likely to be under-estimated.

Regarding outstanding loans of the STUP 2, we did not observe statistically significant difference between proportions of households with outstanding loans of the old and new cohorts (Fig. 11 and Annex 29). Likewise the STUP 1, the STUP 2 women are eligible to take loans from BRAC microfinance. When the survey was conducted, the STUP 2 women did not graduate from asset transfer phase to microfinance, indicating that increasing outstanding loans may not likely. Also, there is evidence that a higher proportion of old cohort of OTUP 1 had outstanding loans compared to the new cohort (Fig. 11). For OTUP 2 we did not observe statistically significant difference between the old and new cohorts. It should be noted here that all OTUP members take loans from BRAC after programme participation, indicating that the women of new cohorts experienced an increase in outstanding loans.

**Figure 10. Percentage of the STUP 2 and OTUP women with cash savings**



**Figure 11. Percentage of the STUP 2 and OTUP households with outstanding loans**



# Conclusion

Despite the remarkable success in poverty reduction, addressing extreme poverty remains a key challenge for Bangladesh. To address this challenge, BRAC initiated the 'Challenging the Frontiers of Poverty Reduction' (CFPR) programme in 2002 for five years (2002-2006) as its debut phase. Based on the programmatic lessons and research knowledge accumulated from the first phase of CFPR, the second phase (2007-2011) of the programme was designed to expand its outreach while incorporating greater diversity in support packages. CFPR II delivers four different packages (STUP 1 and 2 and OTUP 1 and 2 packages).

The broad objective of this study was to undertake an early assessment of the performance of the CFPR II support packages. More specifically, the objectives of this study were to analyze impact of these packages on (i) employment and income, (ii) food security, (iii) vulnerability, (iv) social and legal awareness, and (v) physical and financial assets. For STUP 1 assessment, a randomized control trial (RCT) method was used. For STUP 2 and OTUP packages, the assessment was conducted by comparing old and new cohorts.

The STUP 1 package, evaluated using the RCT method, was found to have significant positive impacts on livelihoods of the participating households. Evidence shows that as a result of programme participation, the STUP 1 households experienced an increase in farm self-employment for both males and females, diversification of income sources, increase in per capita income and food expenditure, and increase in saving behaviour.

The STUP 2 and OTUP 1 and 2 packages, which were assessed by comparing the old and new cohorts, were also found to have significant positive impacts on livelihoods of the participating households; but the dimensions and magnitude of impacts vary within the three packages. Efficacy of OTUP 2 package was found to be the lowest amongst the three. This, however, is expected as OTUP 2 package is significantly less intensive than the other two. On the other hand, the efficacy of the STUP 2 and OTUP 1 packages was found to be quite similar despite the STUP 2 package being more intensive of the two. The STUP 2 households, as was found in this study, experienced loss of livestock and poultry due to hurricane Sidr which might have slowed down the effectiveness of this package.

Modest effectiveness of the OTUP 2 package seems to be expected given the intensity of support. It is, however, important to understand whether effectiveness of the STUP 2 package is enough for sustainable livelihood improvements of the households. But, sustainability of the impacts of the OTUP 2 package would critically be contingent upon their microfinance participation after graduating from CFPR. It is, therefore, recommended that further study should be undertaken to explore whether the OTUP 2 participants are indeed effectively participating microfinance after their graduation from CFPR.



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# Annexes

**Annex 1. Baseline characteristics (recalled) of the new and old cohorts of STUP 2 and OTUP**

	STUP 2			OTUP 1			OTUP 2		
	Old cohort (2007)	New cohort (2008)	Difference	Old cohort (2007)	New cohort (2008)	Difference	Old cohort (2007)	New cohort (2008)	Difference
All the schooling going aged children go to school (% hh)	14.3	7.8	6.5***	8.5	10.5	-2.0	4.05	5.0	-0.96
Own land holding (mean, decimal)	0.00	5.9	1.1	7.3	10.2	-2.9**	14.1	11.2	2.88
NGO membership (% of hh)	5.2	5.0	0.2	12.7	11.4	1.4	35.4	19.1	16.4***
Earning members (mean)	1.4	1.4	0.0	1.4	1.6	-0.2***	1.5	1.5	0.00
No. of cow holding (mean)	0.1	0.1	0.01	0.4	0.4	-0.06	0.50	0.54	-0.04
No. of goat holding (mean)	0.2	0.2	-0.01	0.5	0.4	0.09	0.65	0.67	-0.01
No. of duck/hen holding (mean)	4.0	3.8	0.18	4.9	4.8	0.07	4.9	5.3	-0.38

Note: \*\*\* and \*\* denote statistically significant at 1% and 5% level

**Annex 2. Impact on primary occupation of the working aged (15-60 years) males of the STUP 1 households**

	Baseline (2007)			Follow up (2008)			Impact (Double Difference) (7=6-3)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
Farm self-employment (%)	3.2	1.7	1.6	7.3	1.6	5.8***	4.2*
Farm wage employment (%)	56.6	50.3	6.4	51.5	51.6	-0.1	-6.4
Non-farm self employment (%)	20.4	22.4	-1.9	23.9	25.3	-1.3	0.6
Non-farm wage employment (%)	2.9	7.3	-4.4**	4.3	2.1	2.3	6.7***
Non-farm salaried employed (%)	5.7	3.9	1.8	3.7	3.6	0.1	-1.8
Student (%)	2.5	1.1	1.4	1.3	4.1	-2.8**	-4.2**
Don't work (%)	5.7	8.9	-3.2	6.0	6.2	-0.2	3.0
Begging (%)	2.2	2.8	-0.6	2.0	5.7	-3.7**	-3.0
No. of observations	279	179		301	194		

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level respectively

**Annex 3. Impact on primary occupation of the working aged (15-60 years) women of the STUP 1 households**

	Baseline (2007)			Follow up (2008)			Impact (Double Difference) (7=6-3)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
Farm self employed (%)	0	0.6	-0.6	13.8	1.4	12.4*	13.0***
Farm wage employment (%)	8.8	13.1	-4.3*	6.5	10.5	-4.1**	0.2
Non-farm self-employment (%)	5.1	5.7	-0.6	2.5	6.0	-3.5***	-3.0
Non-farm wage employment (%)	1.4	4.5	-3.1***	0.7	1.7	-1.0	2.0
Non-farm salaried employed (%)	2.8	0.6	2.2**	2.2	0.9	1.4	-0.8
Student (%)	2.6	1.8	0.8	1.6	1.7	-0.2	-0.9
Don't work (%)	2.1	1.5	0.6	0.9	1.4	-0.5	-1.1
Begging (%)	2.6	3.9	-1.3	2.9	3.7	-0.8	0.5
Household chores (%)	53.7	40.8	12.9***	54.6	50.1	4.4	-8.5*
Working as maid (%)	21.1	27.7	-6.6**	14.4	22.5	-8.0***	-1.4
No. of observations	432	336		449	351		

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

#### Annex 4. Impact on income sources of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double difference)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
No. of income sources	2.33	2.30	0.03	3.04	2.35	0.69***	0.66***
No. of observations	385	305		385	305		

Note: \*\*\* denotes statistically significant at 1% level.

#### Annex 5. Impact on per capita income of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double difference)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
Per capita annual income (Tk.)	6456	6854	-398	8478	7940	538	936**
% increase							14.5
No. of observations	385	305		385	305		

Note: \*\* denote statistically significant at 5% level.

#### Annex 6. Impact on food consumption (frequency) of the STUP 1 households

	Treatment (2007 cohort)	Control	Impact (difference)
	(1)	(2)	(3=1-2)
% of household consumed the items in the last week of survey conducted in 2008			
Rice	100	99	1
<i>Ata</i> (wheat)	5	5	0
<i>Dal</i> (lentil)	69	50	19***
Green vegetable	98	96	2
Potato	86	79	7**
Egg	86	79	7**
Fish	89	83	6**
Chicken	10	5	5**
Milk	8	2	6***
Mean days of consumption of the items in the last week survey conducted in 2008			
Rice	6.9	6.9	0.0
<i>Ata</i> (wheat)	0.2	0.1	0.1
<i>Dal</i> (lentil)	1.4	0.9	0.5***
Green vegetable	4.0	3.9	0.1
Potato	2.6	2.0	0.6***
Egg	0.8	0.4	0.4***
Fish	2.3	2.0	0.3***
Chicken	0.1	0.1	0.0
Milk	0.2	0.0	0.2***
No. of observations	385	305	

Note: \*\*\* and \*\* denote statistically significant at 1%, and 5% level, respectively.

**Annex 7. Impact on per capita food expenditure (Tk. per week) of the STUP 1 households**

	Treatment (2007 cohort)	Control	Impact (Difference)
	(1)	(2)	(3=1-2)
Cereal	99.2	96.6	2.60
Lentil	4.57	2.69	1.88***
Vegetable	18.2	16.1	2.1*
Fruits	0.90	0.40	0.50**
Animal	9.22	3.99	5.22***
Fish	12.8	11.3	1.46
Oil	13.9	11.6	2.39***
Others	2.19	1.57	0.62**
Total food	161.0	144.3	16.7***
% increase in food expenditure			11.57
No. of observations	385	305	

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

**Annex 8. Impact on incidence of crisis or events faced in the last one year by the STUP 1 households**

	(% of households)						
	Baseline (2007)			Follow up (2008)			Impact (Double difference)
	Treatment	Control	Difference	Treatment	Control	Difference	
(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7=6-3)	
House damage	6.8	2.0	4.8***	29.1	22.3	6.8**	2.0
Illness of the earning member	12.2	15.1	-2.9	21.3	19.0	2.3	5.2
Illness of other member	10.6	8.5	2.1	6.2	4.6	1.6	-0.5
Loss of crops	1.0	0.7	0.4	1.1	1.0	0.1	-0.3
Death of earning Member	0.5	1.6	-1.1	0.5	0.7	-0.2	1.0
Death of other member	0.0	0.7	-0.7	0.3	0.4	-0.1	0.6
Marriage of the hh member	0.8	1.0	-0.2	2.1	1.0	1.1	1.3
Livestock/ poultry loss due to natural disaster	16.8	20.0	-3.1	47.3	32.5	14.8***	17.9**
No. of observations	385	305		385	305		

Note: \*\*\*, \*\* and \* denote statistically significant at 1% and 5% level, respectively.

### Annex 9. Impact on health seeking behaviour of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double difference)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
No treatment (%)	27	23	4	11	11	0	-4
Traditional (%)	4.6	2.4	2.2	6.6	7.2	-0.6	-2.8
Village doctors (%)	31	37	-6*	38	33	5	11
Alopathic drug seller (%)	25	24	1	13	20	-7	-8
Qualified doctors (%)	6	6	0	20	20	0	0
Homeopathic (%)	4	4	0.0	3	7	-4	-4
Others (%)	2.9	2.8	0.1	7.7	1.8	5.9	5.8*
Medical exp (Tk.) in last 15 days (mean)	76	71	5	264	165	99	94*
Loss of working days in last 15 days (mean)	6.4	6.5	-0.11	7.3	8.5	-1.19	-1.07
No. of observations	247	370		55	90		

Note: \* denotes statistically significant at 10% level

### Annex 10. Impact on sanitation of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double difference)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
Have sanitary latrine (% hh)	56	53	3	86	47	39	36***
Know how to use sanitary latrine (% of respondent women)	73	74	-1	81	50	31***	32***
No. of observations	385	305		385	305		

Note: \*\*\* denotes statistically significant at 1% level, respectively.

**Annex 11. Impact on social and legal awareness of the STUP 1 women**

	Baseline (2007)			Follow up (2008)			Impact (Double difference)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7=6-3)
Know legal age of marriage for male (%)	10.9	14.4	-3.5	50.4	25.6	24.8***	28.3***
Know legal age of marriage for female (%)	34.3	34.8	-0.5	74.6	47.9	26.9***	27.1***
Know about punishment for giving/taking dowry (%)	5.2	1.6	3.6***	18.7	3.9	14.8***	11.2***
Know correct divorce laws (%)	5.5	3.0	2.5	16.9	7.5	9.3***	6.84**
Whether know after how many days divorce is official (%)	47.6	66.7	-19.2	78.5	56.5	21.9**	41.0*
Know voting age (%)	16.1	16.1	0.0	55.1	43.6	11.5***	11.4**
Know how to distribute assets among sons and daughters (%) (for Muslims only)	26.4	30.2	-3.8	50.1	36.0	14.1***	17.9***
Heard about BRAC Legal Aid Clinic (%)	4.7	3.9	0.7	44.9	7.5	37.4***	36.7***
Know about the facilities at legal aid clinic (%)	22.2	50.0	-27.8	36.4	17.4	19.0*	46.8**
Mean score (%)	10.2	10.0	0.2	31	15	16*	16***
No. of observations	385	305		385	305		

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

## Annex 12. Impact on asset holdings of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double difference) (7=6-3)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
<b>% of households own asset</b>							
Cow/bull	6.5	3.9	2.6	40.7	5.9	34.4***	32.2***
Goat/sheep	8.6	11.5	-2.9	65.9	40.0	25.9***	28.8***
Hen/duck	45.2	47.8	-2.7	55.3	40.7	14.7***	17.3***
Shop	0.8	0.7	0.1	2.1	1.0	1.1	1.0
Boat	0.8	0.3	0.5	0.5	0.0	0.5	0.1
Net	3.4	1.6	1.7	2.8	1.6	1.2	0.5
Rickshaw/van	2.3	1.3	1.0	5.5	0.0	5.5***	4.4***
<b>Size of asset</b>							
Cow/bull	1.2	1.2	0.1	1.3	1.3	-0.05	-0.15
Goat/sheep	2.4	1.7	0.6	2.3	2.0	0.2	-0.4
Hen/duck	1.8	2.2	-0.4	3.2	1.3	1.9***	2.3***
Shop	1.0	1.0	0.0	1.0	1.0	0.0	-
Boat	1.0	1.0	0.0	1.0	1.0	0.0	0.0
Net	1.0	1.0	0.0	1.2	1.4	-0.22	-0.2
Rickshaw/van	1.0	1.0	0.0	1.0	1.0	0.0	0.0
No. of observations	385	305		385	305		

Note: \*\*\* denotes statistically significant at 1% level.

## Annex 13. Impact on housing condition of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double difference) (7=6-3)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
Own house (% hh)	89	92	-3	94	94	0.0	3
Value (Tk) of the house (if own house)	4044	3925	119	4419	3225	1194***	1075**
Have separate kitchen (% hh)	44	40	4	46	40	6	2
Have electricity connection (% hh)	4	2	2	9	10	-1	-3
No. of observations	385	305		385	305		

Note: \*\*\* and \*\*denote statistically significant at 1% and 5% level, respectively.

## Annex 14. Impact on cash savings of the STUP 1 beneficiary women

	Baseline (2007)			Follow up (2008)			Impact (Double difference) (7=6-3)
	Treatment	Control	Difference	Treatment	Control	Difference	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	
% of women with cash savings	35.3	32.8	2.5*	95.6	37.7	57.9*	55.3***
No. of observations	385	305		385	305		

Note: \*\*\* and \* denote statistically significant at 1% and 10% level, respectively.



### Annex 15. Impact on outstanding loans of the STUP 1 households

	Baseline (2007)			Follow up (2008)			Impact (Double
	Treatment	Control	Difference	Treatment	Control	Difference	Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7=6-3)
% of households have outstanding loans	16	19	-3	23	27	-4	-1
No. of observations	385	305		385	305		

Note: None of the difference double difference is statistically significant.

### Annex 16. Impact on primary occupation of the working aged (15-60 years) males of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
Farm self-employment (%)	13.7	6.4	7.2***	8.8	8.1	0.7	8.8	10.5	-1.6
Farm wage employment (%)	25.7	35.1	-9.4***	19.4	20.5	-1.1	25.8	25.8	0.0
Non-farm self-employment (%)	28.6	31.5	-3.0	45.0	45.9	-1.0	42.6	42.0	0.6
Non-farm wage employment (%)	19.7	10.3	9.4***	10.6	6.7	4.0	6.3	6.6	-0.3
Non-farm salaried employed (%)	2.9	3.6	-0.7	2.3	3.6	-1.3	2.7	3.4	-0.7
Student (%)	3.2	5.6	-2.5	6.2	6.8	-0.7	5.7	3.6	2.0
Don't work (%)	3.8	6.2	-2.3	7.2	8.3	-1.0	7.8	8.1	-0.4
Begging (%)	2.5	1.3	1.3	0.5	0.2	0.4	0.4	0.0	0.4
No. of observations	315	390		387	516		477	469	

Note: \*\*\* denotes statistically significant at 1% level.

**Annex 17. Impact on primary occupation of the working aged (15-60 years) women of the STUP 2 and OTUP households**

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
Farm self employed (%)	12.1	5.5	6.6***	14.4	4.7	9.7***	8.8	5.8	3.1*
Farm wage employment (%)	1.1	0.4	0.7	0.2	0.6	-0.4	1.2	3.4	-2.2**
Non-farm self employment (%)	3.3	4.8	-1.5	12.1	9.2	2.9	14.4	13.3	1.1
Non-farm wage employment (%)	4.2	3.0	1.2	2.3	3.0	-0.7	2.2	0.6	1.6**
Non-farm salaried employed (%)	2.2	1.8	0.4	1.6	1.7	-0.1	1.0	1.6	-0.6
Student (%)	2.2	3.0	-0.8	2.1	4.9	-2.8**	4.2	3.6	0.6
Don't work (%)	1.3	1.6	-0.3	1.6	1.6	0.0	2.4	2.2	0.2
Begging (%)	2.2	1.1	1.1	0.5	0.5	0.0	-	-	-
Household chores (%)	56.6	64.1	-7.5***	58.4	71.1	-12.8***	64.3	68.4	-4.1
Working as maid (%)	14.8	14.7	0.1	6.7	2.7	4.1***	2.1	1.2	0.9
No. of observations	546	563		430	534		499	503	

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

**Annex 18. Impact on income sources of the STUP 2 and OTUP households**

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
No. of income sources	3.03	2.67	0.37***	3.03	2.96	0.07	3.01	3.00	0.01
	442	477		330	375		395	399	

Note: \*\*\* denote statistically significant at 1% level.

### Annex 19. Impact on per capita income of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference) (3=1-2)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference) (6=4-5)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference) (9=7-8)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
Per capita annual income (Tk)	8150	7156	994***	10601	9414	1186*	10401	9669	732*
% increase in per capita income			12.2			12.2			7.6
No. of observations	442	477		330	375		395	399	

Note: \*\*\*, and \* denote statistically significant at 1% and 10% level, respectively.

### Annex 20. Impact on food consumption (frequency) of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact Difference (3=1-2)	Old Cohort (2007)	New Cohort (2008)	Impact Difference (6=4-5)	Old Cohort (2007)	New Cohort (2008)	Impact Difference (12=7-8)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(12=7-8)
<b>% of household consumed the items in the last one week of survey conducted in 2008</b>									
Rice	100	100	0	100	100	0	100	100	0
Ata (wheat)	2	1	1	13	9	4	6	6	0
Dal (lentil)	79	67	12***	87	90	-3	72	75	-3
Green vegetable	98	98	0	98	96	2**	98	96	2
Potato	84	84	0	95	95	0	86	86	0
Egg	31	21	10***	25	29	-4	37	37	0
Fish	81	87	-6**	82	87	-5*	90	90	-0
Chicken	5	6	-1	6	6	0	8	7	1
Milk	4	4	0	8	5	3*	7	5	2
<b>Mean days of consumption of the items in the last week of survey conducted in 2008</b>									
Rice	7.0	7.0	0.0	7.0	7.0	0.0	6.9	7.0	-0.1
Ata (wheat)	0.1	0.1	0.0	0.5	0.3	0.2**	0.2	0.1	0.1
Dal (lentil)	1.7	1.4	0.3***	2.3	2.7	-0.4***	1.6	1.7	-0.1
Green vegetable	3.5	3.9	-0.3***	3.7	3.4	0.3**	3.6	3.5	0.1
Potato	2.4	2.2	0.2**	3.5	3.6	-0.1	3.3	3.3	0.0
Egg	0.6	0.3	0.3***	0.4	0.5	-0.1	0.7	0.7	0.0
Fish	1.9	2.2	-0.3***	1.9	2.4	-0.4***	2.4	2.4	0.0
Chicken	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Milk	0.1	0.1	0.0	0.3	0.2	0.1	0.3	0.2	0.1
No. of observations	442	477		330	375		395	399	

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

**Annex 21. Impact on per capita food expenditure (Tk. per week) of the STUP 2 and OTUP households**

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)	(10)	(11)	(12=10-11)
Cereal	96.6	92.7	3.9**	88.3	85.2	3.02	94.4	91.1	2.34
Lentil	5.0	3.6	1.3***	6.6	7.0	-0.4	5.7	5.5	0.3
Vegetable	18.0	17.9	0.1	16.3	15.7	0.6	19.4	18.8	0.6
Fruits	1.46	1.37	0.09	0.7	0.6	0.1	1.05	0.5	0.5**
Animal	5.05	3.25	1.8**	5.1	3.9	1.2	5.4	4.0	1.4*
Fish	12.3	12.1	0.2	15.5	14.9	0.5	15.1	14.7	0.4
Oil	15.0	15.1	-0.1	15.2	14.1	1.1*	12.0	11.4	0.5
Others	2.4	1.5	0.9***	6.0	4.7	1.3*	2.4	2.5	-0.08
Total food	155.8	147.7	8.1**	153.6	146.2	7.5**	154.5	148.5	6.05*
% increase in food exp			5.5			5.1			4.1
No. of observations	442	477		330	375		395	399	

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

**Annex 22. Impact on incidence of crisis or events faced by the STUP 2 and OTUP households in the last one year**

(% of households)

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort	New Cohort	Impact	Old Cohort	New Cohort	Impact	Old Cohort	New Cohort	Impact
	(2007)	(2008)	(Difference)	(2007)	(2008)	(Difference)	(2007)	(2008)	(Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
House damage	36	39	-3.4	21	23	-2	36	38	-2
Severe illness of earning member	16.7	13.42	3.28	10.1	8.21	1.89	9.87	7.52	2.35
Severe illness of other member	8.60	7.97	0.63	9.70	9.47	0.22	3.04	4.01	-0.97
Loss of crops	1.58	0.42	1.16*	1.82	5.47	-3.66***	5.06	6.52	-1.45
Death of earning member	0.45	0.63	-0.18	0.61	0.21	0.40	1.27	0.25	1.02
Death of other member	0.23	0.42	-0.19	0.00	0.21	-0.21	0.51	0.25	0.26
Marriage in the household	0.68	1.05	-0.37	3.33	2.11	1.23	2.28	1.75	0.52
Loss of livestock/poultry due to natural disaster	56.56	32.08	24.5***	35.45	24.63	10.8***	33.16	36.6	-3.43
No. of observations	442	477		330	375		395	399	

Note: \*\*\* and \* denote statistically significant at 1% and 10% level, respectively.

### Annex 23. Impact on health seeking behaviour of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
No treatment (%)	6	10	-4	17	18	-1	8	20	-12**
Traditional (%)	8	6	2	8	15	-7*	28	11	17***
Village doctors (%)	24	28	-4	30	27	3	41	43	-2
Allopathic drug seller (%)	17	14	3	24	16	8	5	3	2
Qualified (%)	30	31	-1	12	13	-1	15	11	4
Homeopathic (%)	6	4	2	3	0	3**	0	1	-1
Others (%)	10	7	3	7	10	-3	3	10	-7*
Medical exp (Tk.) in last 15 days (mean)	325	527	-202	233	320	-87	344	384	-40
Loss of working days in last 15 days (mean)	8.33	8.60	-0.27	6.93	7.21	-0.28	7.35	7.15	0.20
No. of observations	84	81		103	99		75	87	

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

### Annex 24. Impact on sanitation condition of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
Have sanitary latrine (% hh)	79	64	16**	75	70	5*	82	77	5*
Know how to use sanitary latrine (% of respondent women)	77	75	2	74	64	10***	81	78	3
No. of observations	442	477		330	375		395	399	

Note: \*\*\*, \*\* and \* denote statistically significant at 1%, 5% and 10% level, respectively.

**Annex 25. Impact on awareness among the STUP 2 and OTUP women**

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
Know legal age of marriage for male (%)	47	42	5	29	41	12***	75	77	-2
Know legal age of marriage for female (%)	79	74	5	69	77	-8	84	84	0
Know about punishment for giving/taking dowry (%)	20	15	5***	8	4	4***	51	55	-4
Know correct divorce laws (%)	19	15	4***	6	4	2	46	30	7***
Know after how many days divorce is official (%)	74	72	2	85	61	24***	89	90	-1
Know voting age (%)	67	72	-5***	72	73	-1	77	77	0
Know how to distribute among sons and daughters (%) (for Muslims only)	47	53	-6**	47	43	4	62	63	-1
Heard about BRAC legal aid clinic (%)	41	41	0	49	30	19***	63	65	-2
Know about the facilities in Legal aid clinic (%)	40	44	-4	60	39	21***	75	77	-2
Mean score (%)	31	30	1	27	24	3**	50	53	-3
No. of observations	442	477		330	375		395	399	

Note: \*\*\* and \*\* denote statistically significant at 1% and 5% level, respectively.

## Annex 26. Impact on asset holdings of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
<b>% of households own the asset</b>									
Cow/bull	19	6	12***	48	53	-5	40	46	-6
Goat/sheep	25	11	14**	30	25	5*	35	33	2
Hen/duck	57	43	14**	68	69	-1	76	83	-7**
Shop	0.22	0.21	0.01	1.5	3.5	-2	4.05	2.25	1.80
Boat	0.67	0.21	0.46	1.8	1.47	0.34	1.8	2.25	-0.4
Rickshaw/van	13	6	7**	12	18	-6**	13	17	-4
Mobile phone	11	3	8**	8	12	-4	8	2	6.**
<b>Size of the asset</b>									
Cow/bull	1.23	1.33	-0.10*	1.32	1.22	0.10*	1.53	1.57	-0.04
Goat/sheep	1.59	2.62	-1.03	2.25	1.91	0.34	2.12	2.19	-0.07
Hen/duck	5.73	5.86	-0.13	5.76	6.36	-0.60	5.77	4.62	1.15*
Shop	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Boat	1.00	1.00	0.00	1.00	1.00	0.00	1.14	1.00	0.14
Rickshaw/van	1.00	1.00	0.00	1.00	1.05	-0.05	1.11	1.04	0.07
Mobile phone	1.75	1.53	0.22	2.10	1.60	0.50*	2.00	1.27	0.73
No. of observations	442	477		330	375		395	399	

Note: \*\*\*, \*\*, \* denote statistically significant at 1%, 5%, and 10% level, respectively.

## Annex 27. Impact on housing condition of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
Have own house (% hh)	93	94	-1	94	95	-1	95	95	0
Value (Tk) of the house (if own house) (mean)	5291	5347	-56	10900	11749	-849	9193	8456	737
Have separate kitchen (% hh)	58	60	-2	75	77	2	58	54	4
Have electricity connection (% hh)	9	10	-1	31	25	6*	13	15	-2
No. of observations	442	477		330	375		395	399	

Note: \* denotes statistically significant at 10% level.



### Annex 28. Impact on cash savings of the STUP 2 and OTUP women

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
% of women with cash savings	95	87	8*	99	99	0.00	97	98	-1
No. of observations	442	477		330	375		395	399	

Note: \* denotes statistically significant at 10% level.

### Annex 29. Impact on outstanding loans of the STUP 2 and OTUP households

	STUP 2			OTUP 1			OTUP 2		
	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)	Old Cohort (2007)	New Cohort (2008)	Impact (Difference)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)
% of households have outstanding loans	26.0	24.1	1.9	87	80	7***	89	90	-1
No. of observations	442	477		330	375		395	399	

Note: \*\*\* denotes statistically significant at 1% level.