Integration of the Ultra Poor into Mainstream Development: How Effective is CFPR?

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ABSTRACT

This paper aimed to understand the dynamics of participation of the TUP (Targeting the Ultra Poor) members of CFPR (Challenging the Frontiers of Poverty Reduction) phase I in the financial market since their graduation from the CFPR programme. The analysis was done using the longitudinal panel data (2002, 2005 and 2008). It has been found that after two years of programme support and provision of some flexibilities in borrowing from BRAC microfinance, the ultra poor can meaningfully participate in the formal credit markets. Their active participation can help them achieve long-term benefits in the form of increased per capita income. Participation in the programme has brought about significant positive impacts in the rate of borrowing as well as lending and saving behaviours of the participant households. More than two-thirds of the sampled members had ended up participating at least once in BRAC microfinance. Those who had participated more than once tended to use the loans more for productive purposes like to run their small business enterprises than for consumption. Participation in BRAC microfinance has mostly been influenced by demographic profiles like marital status and level of awareness of the participants, number of male working aged members and self-perceived economic status before participation in the CFPR programme and later after graduation whether they were in a separate village organization (VO) or in a VO merged with the general microfinance borrowers. Being in separate VOs was one of the strong determinants of BRAC microfinance participation. This has been one of the flexibilities along with the provision of considerably smaller loans at each loan cycle compared to general microfinance borrowers which clearly helped borrowing from BRAC microfinance. Participation in BRAC microfinance was not an automatic process. Some distinctions have been found between those who participated in BRAC microfinance early (within one year of graduation from grant phase) and those who participated much later. Level of awareness on various social, legal and political issues of the women, outstanding loans from informal sources and self-perceived economic status were the underlying factors in determining early adoption of microfinance.

INTRODUCTION

Microfinance has become a popular tool for poverty reduction especially in Bangladesh where it was pioneered. Since its inception in the early 1970s. microfinance institutions (MFI) Bangladesh have made great strides in providing collateral free small credit to the poor, especially the women. Rural society in Bangladesh is marked by poor infrastructure, seasonal unemployment, and widespread poverty. In such setting, even small amount of financial capital is difficult to accumulate. Formal institutions like banks have been alleged to fail to meet the credit needs of the poor by stubbornly catering to the richer segments of the population who have sufficient assets to show collateral and borrow in large amounts. This, however, has been the case in many developing nations. It is, therefore, no wonder that in most developing countries microfinance, a collateral free credit has proved itself to be a breakthrough strategy to make significant inroads into defeating poverty and gain widespread popularity all over the world.

Given the socioeconomic condition in Bangladesh where about half of the labour force¹ is employed in the agricultural sector, microfinance has come as an opportunity to many poor households to diversify into non-farm occupations, build an asset base, stabilize consumption, increase income, cope up with crises, and many more². The vast outreach of

microfinance in Bangladesh³ has played an important role in improving the financial market imperfections.

However, microfinance is also criticized regarding its drawbacks. One of these drawbacks that has been recognized and criticized widely is its failure to meet the needs of the extreme poor. There is a growing recognition that the representation of the poorest of the poor in microfinance is quite low (Rahman and Razzague 2000, Zaman 2005). Poverty focused MFIs used "ownership of less than 50 decimal of land" as eligibility criteria which ought to be inclusive of the extreme poor and this was the case in the initial years (Sulaiman and Matin 2009). However, during the 1990s, microfinance started to expand at a remarkable pace which thus required expansion of the clientele base. As a result the extent of mis-targeting had increased, rising from about 25% of programme borrowers in 1991/92 to 31% in 1998/99 (Khandker 2005).

The low representation of the extreme poor in microfinance is often attributed to both the demand and supply side constraints of such a programme. Hashemi (1997), for instance, showed that from the demand side the extreme poor tended to exclude themselves because they do not want to borrow due to social and religious barriers and also because they found the rules to be complicated. From the supply side, MFIs themselves, because of their institutional set up, have left out the poorest as they feared that the extreme poor would not be capable of repaying the loan on time.

Under-representation of the extreme poor in microfinance led to the challenge of rethinking about the existing development interventions and their capacity to address all poverty groups. This

¹ In 2002/03 49.4% of all employed persons aged 15 years and above were engaged in agriculture and forestry related activities (BBS 2004).

² Pit et al. (1998) showed that microfinance helps the poor in consumption smoothing and asset building. Using a panel data over 1991/92-1998/98 on three MFIs in Bangladesh (BRAC, Grameen Bank and BRDBs RD-12 project), Khandker (2003) showed that microfinance benefits the poorest and sustained impact in reducing poverty among participants. The positive impact of microfinance on non-income indicators is also apparent (Pitt et la. 2003, Hashemi, et al. 1996). These include: (i) participants are more able to discuss family planning issues with their spouses, (ii) participants take a greater role in household decision making, (iii) participants have greater access to financial, economic and social resources; and (iv) participants enjoy greater mobility.

³ As of 2008, total number of active borrowers of all MFIs in Bangladesh was 15.8 million, with gross loan portfolio of \$1.6 billion (microfinance information exchange website: www.mixmarket.org).

challenge led BRAC to initiate an innovative programme especially for the extreme poor called 'Challenging the Frontiers of Poverty Reduction-Targeting the Ultra Poor' (CFPR-TUP) in 2002. By providing a comprehensive support package which includes enterprise development training, asset transfer, subsistence allowance, health subsidy and social development support for a period of two years, CFPR aims to enhance the economic and social capabilities of the ultra poor.4 This intensive support creates a platform for the ultra poor which enables them to overcome the socioeconomic constraints on their livelihoods. They can then pursue their own development and well-being by taking advantage of the mainstream development initiatives like microfinance. So, the CFPR programme is designed in a manner so that after receiving all these essential supports from BRAC for a period of two years, they form small groups and are offered small amount of credit from BRAC microfinance.

BRAC provides a number of flexibilities while providing microfinance to the CFPR graduates.⁵ Most of the CFPR graduates form their own village organizations (VO), the key platform of providing microfinance. This is relatively smaller than the conventional microfinance VOs such that they can enjoy more intensive supervision from the programme. The loan size for the CFPR graduates is also relatively smaller than that of the conventional microfinance clients operational cost of delivering smaller loan is higher. In addition, the CFPR graduates do not have to maintain the strict requirement of saving for taking loans. Even after forming their small groups, the CFPR graduates can take time for considering themselves for loans which is normally unusual in conventional microfinance. The intensive supervision that the CFPR participant women enjoy during the grant phase of the programme also continues to some extent

(staff from CFPR programme visits the graduates at times) such that they can get the opportunity to share/consult their future plans with the CFPR staff.

Sulaiman et al. (2006) evaluated microfinance engagements of the CFPR members who graduated from grant phase in 2004. But their study explored microfinance participation of the members soon after their graduation (in 2005) using cross sectional data. They found that around half of the CFPR graduates participated in BRAC microfinance and many of those who did not participate by 2005 intended to do so soon. It is, therefore, intriguing to know whether those who had expressed their intention to participate in BRAC microfinance, have really done so or not, and whether those who already participated had continued it or not. Present study intends to explore the CFPR graduates' lending, borrowing and saving behaviour using longitudinal survey data, with particular focus on BRAC microfinance participation. Specific research questions are:

- Has the CFPR intervention enabled the participants to participate more actively in credit market, particularly BRAC microfinance?
- 2. Has the dependency of the CFPR participants on informal credit market (such as moneylender) decreased?
- 3. Do the economic and demographic characteristics of the CFPR participant households affect quality of BRAC microfinance participation?
- 4. Has the CFPR intervention played any role on the saving and lending behaviour of the participant households?
- 5. Has BRAC microfinance participation helped improve livelihoods of the participant households?

⁴ For details of the CFPR programme see Ahmed et al. (2009)

We have used the term "graduate" to indicate that the participant households completed the two-year cycle of the CFPR programme.

METHODS

Data

CFPR programme was launched in 2002 in the three poorest districts (Rangpur, Kurigram and Nilphamari) of Bangladesh. A baseline survey was conducted during June to August 2002 in these three districts. It needs to be mentioned here that the programme targeted the ultra poor households through participatory wealth ranking. Usually households in the poorest category of wealth ranking were considered as the ultra poor though sometimes households in the poorest two categories were considered. Among the ultra poor, a group of households were selected to receive programme support. These programme beneficiaries were called SUP (selected ultra poor) and the rest of the ultra poor were called NSUP (not selected ultra poor). The baseline survey included both SUP and **NSUP** households. The NSUP households surveyed to represent the comparison group for impact assessment.

The sample size for the baseline survey (2002) was 5,626 households, of which 2,633 were SUP and 2,993 NSUP households. Then in 2005, the second round survey was carried out where 2,474 SUP and 2,754 NSUP households were successfully re-visited. The third round survey was conducted in 2008 where 4,549 households (2,251 SUP and 2,298 NSUP) were successfully re-visited. This study is based on 2002, 2005, and 2008 panel data on 2,251 SUP and 2,298 NSUP households. Data were collected through survey questionnaire interviewing the main female member of the household.⁶ Though the NSUP households were identified as the ultra poor by the community, they were excluded in the final selection for programme support as they were relatively better off than the SUP households in the baseline (Annex A1).

⁶ For SUP households, the programme participant women were considered as the main female of the household.

Analysis of the programme effects on overall outstanding borrowing and lending, and saving of the households has been conducted by comparing the SUP and NSUP households using three rounds of survey data (2002, 2005 and 2008). For assessing programme impacts, difference-in-difference technique has been used, which is based on the following equation:

 $Y_{it} = a+b_1Year 2005_t+b_2Year 2008_t+b_3Beneficiary_i +b_4Year 2005_t*Beneficiary_i+b_5Year 2008_t*Beneficiary_i+e_i$

where.

Y_i = outcome variable of interest for household (or individual) *i* at time *t*,
 Year 2005_t = 1 if year 2005
 Year 2008_t = 1 if year 2008
 Beneficiary_i = 1 if programme intervention in 2002

In the equation, the constant term 'a' measures the value of the outcome variable of the non-participants in the baseline; b_1 and b_2 measure changes in the outcome variable of the non-participant households in 2005 and 2008 from 2002, respectively; b_3 is the difference in outcome variable between participant and non-participant households in the baseline; b_4 and b_5 measure the difference-in-difference (or average treatment effect) of the outcome variable during 2002-05 and 2002-08, respectively. Impact assessment of overall outstanding borrowing and lending, and savings was conducted using the equation (1).

However, since the CFPR participants are eligible for BRAC microfinance after their graduation from grant phase of the programme, their participation in BRAC microfinance has been analyzed using 2005 and 2008 data. We have conducted some descriptive analysis on the average size and frequency of loans taken, percentage of households who had taken loans and use of loan. However, we carried out regression analysis to see the factors associated

with the participation in BRAC microfinance and its effect on their livelihoods. In the regression analysis, baseline (2002) characteristics has been controlled. Details of the regression analysis have been presented in the results and discussion section.

Besides the quantitative analysis using the above mentioned information, this paper also provides insights of participation of the CFPR members in BRAC microfinance using some qualitative case studies.

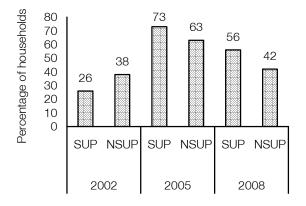
RESULTS AND DISCUSSION

Participation in the Credit Market

Outstanding credit

In the baseline 38% of the NSUP households had outstanding credit compared to 26% of the SUP (Fig. 1). In 2005 however, 73% of the SUP and 63% of the NSUP households had outstanding loan. But in 2008 this trend decreased considerably for both SUP and NSUP households but still it remained higher for the SUP. Both of the difference-in-differences were found to be positive and statistically significant indicating that programme participation had positive impacts on borrowing behaviour, and that to large extent sustained over the longer term (Annex A2). Size of outstanding credit was higher for NSUP households in the baseline, but in 2005 it was similar for both NSUP and SUP (Annex A2). Mean size of outstanding loans of the SUP increased from Tk. 1,161 to Tk. 2,220 during 2002-05. Both of the difference-in-differences for size of outstanding credit were found to be statistically significant with positive sign.

Figure 1. Percentage of households with outstanding credit



Sources of credit

When we disaggregate the sources of credit over the years, we find that in the baseline the SUP households relied heavily on informal sources while their borrowing from NGOs was minimal (Table 1). The NSUP had greater access to NGO credit in the baseline. The underlying reason behind this is the exclusion criteria used by CFPR programme to select the ultra poor for programme support. However, the scenario has changed over time and the borrowing of the SUP from NGOs has risen significantly and this seems to have crowded their borrowing from the informal sources — particularly from moneylenders. The remarkable increase in access to NGO loans by the SUP may be due to:

- Automatic acceptance into BRAC microfinance programme
- More confidence in applying for loans
- Livelihood improvements due to programme intervention⁷
- Enhanced knowledge about microfinance and NGOs

Although microfinance services allow the borrowers to break, to some extent, the bottleneck of credit constraints of the rural poor households, informal transactions are often necessary to meet other types of credit needs. It has been observed that the informal loan sources, particularly relatives and neighbours, have always been and still continue to be an important source of credit for both SUP and NSUP (Table 1). Perhaps easy access and flexibility in repayment are the major factors that made these two sources of loans more reliable to the poor. More importantly, it may also indicate a strong social presence/bondage of a mutually inclusive insurance among the ultra poor themselves to help each other during crisis. Those who are lending may do it in the hope that they might also be able to rely on someone to help them during crisis. Furthermore, reliance on informal sources may be due to the fact that in

Das and Misha (2010) showed that programme had significant positive impacts on asset holding, income and food security of the participant households.

microfinance, a borrower cannot take another loan until the former one is repaid. So, if a borrower still continues a loan from microfinance and if she urgently needs some credit, she may be forced to rely on the informal sources or another NGO.

Purchase on credit from shops is also quite prevalent in the rural areas since the poor do not always have cash at hand. Another intuition behind this is that during lean period the men tend to migrate and leave the family behind. During these times, credit arrangements with shopkeepers are made which are paid back once they return.

Table 1. Sources of outstanding loan (% of total amount of outstanding loans)

	2	002	2	005	2008		
•	SUP NSU		SUP	NSUP	SUP	NSUP	
NGO	6.9	43.2	72.2	40.4	67.5	38.0	
Bank	0.7	5.5	0.1	1.1	0.9	3.5	
Relatives	28.5	14.1	7.9	16.3	9.0	21.8	
Neighbours	37.5	20.4	13.3	27.2	15.0	24.9	
Moneylenders	14.3	10.2	1.3	4.1	4.3	6.3	
Shops	7.7	4.6	4.3	8.2	3.0	4.0	
Others	4.3	1.8	0.6	1.9	0.1	0.5	

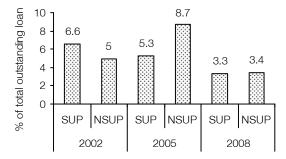
Dependency of rural households moneylender loan is well-known, and it is often associated with high rate of interest.8 Although this was once a common phenomenon in rural areas, now-a-days with the advent of so many NGOs and other institutions, moneylender's importance might have declined. As the analysis shows, vulnerability of rural poor to exploitations of the moneylenders is quite insignificant. In the baseline, about 14% of the total loan amount that had been borrowed was from moneylenders for SUP, and it was 10% for NSUP. By 2005, reliance on moneylenders decreased for both SUP and NSUP but at a faster rate for SUP. This remarkable reduction in share of moneylender loans may be partly because of increasing overall outstanding loans of the SUP during 2002-2005. However, the proportion crept up a little in 2008.

But despite this upward movement, overall rate remained at a minimum and significantly below the level that existed in 2002. Overall programme impacts and the effects of establishing access to formal credit sources had played a role in reducing the dependency of the participant households on moneylender.

Types of credit

Some proportion of the loans borrowed by the SUP and the NSUP was in the form of loans other than cash. In 2002, 6.6% of the loans of the SUP were other than cash loans compared to 5% of the NSUP loans (Fig. 2). The proportion of other than cash loan among the SUP declined over time to 5.3% in 2005 and 3.3% in 2008. On the other hand, there was an upsurge in the borrowing of other than cash loans for the NSUP in 2005, but by 2008, this figure dropped significantly. By the endline the proportion of such loans among both the group were nearly at the same level. The decrease in this type of loan is mostly because of falling credit share from shops, as shown earlier.

Figure 2. Share (%) of other than cash loan, 2002-08



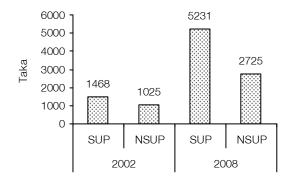
Self-perceived ability to borrow

This section highlights the impact of programme intervention on borrowing ability of the SUP women based on their self-perception. Increase in ability to borrow reflects not only their greater accessibility to different sources of credit but also their increased mobility and confidence. In the survey, respondents were asked about how much money they could borrow in a week if they needed to collect some money urgently to cope with any crisis/event. This information was not available in the baseline, but was available in the two follow-up surveys. Analyzing the information it was found that during 2005-08 there was

⁸ Mallick (2009) showed that interest rate for moneylender loan is 103%. On the other hand, Sinha and Matin (1998) reported that about 87% of rural households in the northern Bangladesh borrow from informal sources.

tremendous increase in the SUP women's self-perceived ability to borrow (Fig. 3). To reiterate, in 2005 SUP women perceived that they could borrow, on average, Tk. 1,468 whereas the NSUP women perceived an average amount of Tk. 1,025. The corresponding figures in 2008 were found to be Tk. 5,231 and Tk. 2,725.

Figure 3. Self-perceived amount of money that the respondent women can borrow in a week from all sources



Outstanding lending

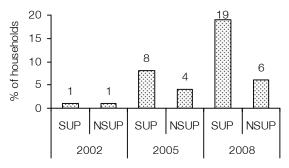
Figure 4 shows that at the baseline, one percent of both SUP and NSUP households had some outstanding lending. However, lending among both the groups appeared to increase over time particularly for SUP households. In 2005, 8% of SUP households reported to have outstanding lending and by 2008 the proportion climbed up to 19%. The corresponding proportions among the NSUP households were 4% and 6%. Annex A3 shows that the differencein-differences (the impact of the programme) in both 2005 and 2008 over 2002 are significant at the 1% level with positive signs. This indicates that participation in the programme had significant positive impacts on the lending of the participant households. This means that the SUP households after participation in the programme, began to generate some surplus after meeting their family expenses. One of our case studies (Annex B1) shows how a SUP woman generated surplus income after meeting family expenditure.

Savings

The SUP women start saving with BRAC soon after joining the CFPR programme. They enjoy relatively greater flexibility than the mainstream microfinance participants in terms of sizes of

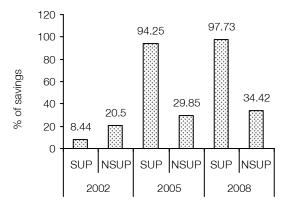
deposits and withdrawal while saving without interest. After graduation, they are likely to join mainstream BRAC microfinance which requires them to save a certain amount during the VO meeting each week. In such case, they earn some interest (generally 6%) on their savings.

Figure 4. Proportion (%) of households with outstanding lending



In the baseline, 8% of the SUP women had cash savings compared to 21% of the NSUP women (Fig. 5). This lower level of cash savings indicates that the ultra poor are compelled to spend almost all of their meagre income to meet their basic necessities. This also reflects their limited fall back options in times of crisis or repayment of loan, if any. However, in 2005, 94% of the SUP women had cash savings compared to 30% of the NSUP women. The upward trend in the savings behaviour among both SUP and NSUP continued and increased to 98% and 34% respectively in 2008. However, the higher propensity to save among SUP can be explained by the requirement of the programme to save compulsorily on weekly basis during the support phase and even after their graduation to microfinance.

Figure 5. Proportion of the respondent women with cash savings



The data on accumulated savings of the SUP and NSUP women were not collected through the baseline and follow-up surveys. However, in 2008 follow-up survey, the information on savings of the SUP women with BRAC was collected. It was found that the average amount of savings of SUP women with BRAC in 2008 was Tk. 1,158 (Annex A4).

Participation of the CFPR graduates in BRAC microfinance

Dynamics and determinants of participation in BRAC microfinance

It is expected that after graduation from CFPR programme the participant women would become capable of participating in BRAC microfinance. The 2005 data revealed that by that year half of the graduates participated in BRAC microfinance (Table 2). However, some of those who did not participate within a year after graduation (i.e. 2005) came to adopt this later. By 2008, the proportion of CFPR graduates who had taken at least one loan from BRAC microfinance had stood at 69%. But the proportion of active borrowers as of 2008 was found to be 54% compared to 49.5% in 2005. The slow but gradual increase in participation of the CFPR graduates in BRAC microfinance reflects that even with intensive support from the programme, a significant portion of them needed more time to participate in the mainstream development initiatives.

Table 2. BRAC microfinance participation of the CFPR graduates

Variables	
Taken at least one loan from BRAC till 2005 (%)	49.5
Taken at least one loan from BRAC till 2008 (%)	69
Active borrowers as of 2005 (%)	49.5
Active borrowers as of 2008 (%)	54
Mean frequency of loans as of 2008	2.3

However, it does not mean that the 31% (who had not taken any loan from BRAC as of 2008) will not participate at all later but some might never do so. So, the question arises, why some of the CFPR graduates participate in BRAC microfinance and others do not. It is not unlikely that demographic and economic characteristics

of the graduates would affect their microfinance participation. In order to analyze the determinants of BRAC microfinance participation, a logit regression analysis has been carried out. The regressors include socio-demographic characteristics of the households in 20029 like age, marital status, and level of educational attainment of the respondent women, and household composition like the number of male and female working-aged members and sex of the household head. Some economic and social factors have also been included in the regression. Among the economic factors included are the total number of various productive assets that the households already owned before participation in the programme, such as the number of cows/goats/poultry, rickshaws/vans and the total amount of cultivable land. Their self-perceived economic status which is their perception on whether their economic status improved or not within the last one year has also been included. As for the social factors, a social asset index has been created using information on whether they received any invitation or help from non-relative neighbours or shalish (village court system) in the last one year, whether any villager would lease out/mortgage out land to them and finally whether they cast vote in the union/national election in the last one year. 10 In addition, an awareness index and an index on counterplea/protest have also been included as regressors which were created in a similar manner. The awareness index was constructed using respondent women's awareness on certain social issues like public rights, land related issues and general knowledge whereas the index on participation on counter-plea/protest was con-

⁹ Ideally, 2004 data should have been used as the premicrofinance participation characteristics as that was the time they just graduated from the grant-phase of the program and became eligible for microfinance participation. However, after 2002 baseline survey, next survey data available is for 2005. Use of 2005 data as the premicrofinance characteristics can be questioned because many of the SUP women participated in BRAC microfinance well before 2005 and some of the characteristics may have been affected by their participation in microfinance already. As a result we used only those variables from 2002 which were not that much altered by their participation in the programme.

Dummy variables for these five issues were created where 1 represented a positive response and 0 represented negative response. Then the total score was obtained by adding the respective dummy scores for each member. This was then divided by the total number of issues/dummy variables that have been considered for the index.

structed using information on whether they individually or collectively protested against any unjust or unacceptable social events like early marriage, divorce, violence against women etc. in the last one year. A mix of all these factors and some others like previous NGO participation or informal loans have also been considered as regressors. These regressors have been included to see whether economic and financial situation or the possession of certain strength or characteristics before programme participation had any effects on subsequent participation in credit market after graduating from the grant phase of the programme. Along with all these, the type of village organization (VO) they became members of (separate VO with the CFPR members only or a merged VO with BRAC microfinance programme)¹¹ has also been included.

The result of the logit regression reveals that decision to participate in BRAC microfinance is dependent on socio-demographic characteristics like marital status and total number of male working-aged members in the household (Table 3). Self perceived economic status, and being a member in a separate VO also affect the decision to participate in BRAC microfinance. Decision to take a loan obviously depends on whether there is a scope to use it. So the total number male members in the household who are capable of working (within the age of 15-60 years) is a highly significant factor in determining the decision to take loans from BRAC microfinance. An increase of one working-aged male member increases the chances of taking a loan by 2.3%. Being married also provides more scope and ability to use loans and, therefore, this factor is also significant. Being in separate VOs also encourages BRAC microfinance borrowing than being in VOs merged with general microfinance. In fact, this raised the chances of participating by 15.2%. This could be due to the strict VO disciplines maintained within the separate VOs and the closer attention and care participants received bv the from microfinance staff of CFPR (microfinance staff frequently visits the separate VO members as those are all CFPR members). Among the social factors, the awareness index has been found to be highly significant in determining participation in BRAC microfinance. This is expected, as participants who were more aware about social and public issues would be expected to be more aware about the rules and regulations of borrowing as well and be less intimidated about participating in such formal credit markets. Finally, those who perceived a deterioration in the economic status in the previous year of the baseline survey were more likely to participate in BRAC microfinance.

Even though the age of respondent women was not found to be a significant factor from the regression results, negative influence of age in taking loans was found in one of our case studies (Annex B3). According to Annex B3, Alekjan (66), a widow, has taken three loans from BRAC but she is reluctant to take further loan from BRAC as she fears that taking a loan would be too risky at this age in case she fails to repay it before she dies. She does not want to leave behind any debts. This case study provided insights into how older members think and why they are reluctant about continuing with BRAC microfinance.

Figure 6 shows the dynamics of the CFPR graduates' participation in BRAC microfinance till 2008. It was observed that in 2005, nearly half of the graduates took loans from BRAC. Many were uncertain or did not want to take further loans. But in fact, majority of them took further loan(s). The rest (50%) who did not participate in BRAC microfinance by 2005, were much more reluctant about becoming involved in microfinance over the next few years. Only 48% of those who wanted to take loan later had actually done that. Almost two-thirds of those who did not want to take any loan had adamantly stuck to their decision. This indicates that many of the CFPR members take time to decide about participating in BRAC microfinance programme. The programme is also providing them this flexibility.

An attempt has been made to identify the factors that determine early participation of the CFPR graduates in BRAC microfinance (Table 4). We have categorized the graduates into two

¹¹ The type of VO that the CFPR graduates become a member of depends on their location and especially the number of programme graduates in that locality. After graduation, a list of the graduates is provided to the local BRAC Microfinance office and their staff then forms a VO with those members. However, in some cases not enough CFPR graduates (minimum 15 members are required to form a VO) maybe available in one spot or the ones who are available are too scattered around the locality in order for them to be able to unite in one spot. In such cases the available members are merged with the existing BRAC microfinance VOs in the area.

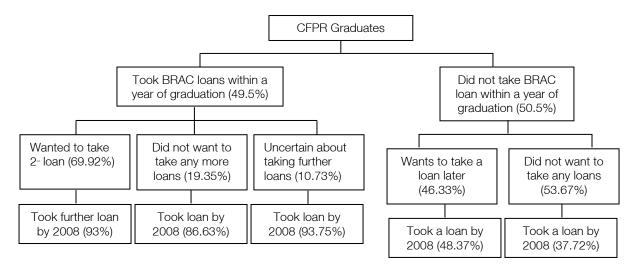


Figure 6. The dynamics of participation in BRAC microfinance over the years after graduation

groups; the first group or the early adopters of microfinance comprises of the graduates who took the first loan by December 2005. The second group or the late adopters of microfinance comprises of the graduates who participated for the first time between January 2006 and July 2008. A logit regression model was used to see which type of members participated. The regressors included are the same as those used to determine participation in BRAC microfinance.

Results show that those with outstanding loans from the informal source, higher level of awareness, facing food deficit in the last one year and having some cultivable land have tended to adopt microfinance early. May be the cost of borrowing from informal sources were high and therefore, those with outstanding loans later met their credit demands by taking loans from BRAC microfinance, once the easy access had been established for them from this source. Having outstanding loans from the informal source

increased the chances of participating early by 5.9%. The level of awareness of the respondent women was the most significant factor in determining early participation in microfinance. As have been mentioned before, those with higher awareness tended to be less intimidated about participating in formal credit markets and were more familiar about the rules and regulations. Also those with some cultivable land tended to participate early, indicating that they felt more financially secure and confident enough to participate than the other graduates. However, those who had faced chronic food deficit in the last year of baseline, were also early adopters in microfinance. This group probably had limited access to any form of credit earlier. Therefore, they met their credit demands through BRAC microfinance once they gained the easy access to it due to the CFPR programme. It is also likely that for similar reasons, those with a perception of deteriorating economic status also tended to be early adopters of microfinance.

Table 3. Determinants of microfinance participation of CFPR graduates (Dependent variable: dummy variable which takes "1" if ever took loan from BRAC after graduating from grant phase and "0" if otherwise)

Regressors	Marginal effect# (z-value)
Female headed household (1= Yes, 0=No)	-0.004 (-0.100)
Household size	0.009 (0.870)
Total amount of cultivable land (decimal)	0.004 (1.400)
No. of crises events faced in the past year	-0.006 (-0.510)
No. of cows/bulls owned	-0.032 (-0.900)
No. of goats/sheep owned	-0.006 (-0.300)
No. ducks/hens owned	-0.002 (-0.280)
No. of rickshaw/van owned	0.019 (0.680)
Self-perceived economic status (1=improved, 0=otherwise)	-0.028* (-1.730)
Received safety nets (1=Yes, 0=No)	0.009 (0.320)
Faced chronic food deficit during the last one year (1=Yes, 0=No)	-0.041 (-0.620)
Respondent woman's age (years)	-0.008 (-1.440)
Had cash savings(1=Yes, 0=No)	0.028 (0.750)
Had outstanding loan from informal source (1=Yes, 0=No)	0.040 (1.640)
Marital status of the respondent woman (1=married and living with husband, 0=otherwise)	0.094** (2.000)
Square of respondent's age	0.000 (1.210)
Respondent woman's education (years of schooling)	0.006 (0.640)
Respondent woman's NGO membership (1=Yes, 0=No)	-0.255 (-1.610)
Respondent woman's disability (1=Yes, 0=No)	-0.068 (-0.950)
Member of separate VO (1=Yes, 0=No (member of merged VO))	0.152*** (3.610)
Total number of male working aged members in the HH	0.023*** (3.120)
Total number of female working aged members in the HH	0.001 (0.180)
Social asset index	-0.028 (-0.520)
Index of awareness of the respondent woman	0.260*** (3.940)
Index on ability to protest	0.006 (0.050)
Respondent woman is self-employed (1=Yes, 0= otherwise)	0.059 (1.420)
Constant	2.534 (2.07)**
Area dummies	Yes
Pseudo R2	0.1229
No of observation	2079

#For dummy variable the effect is from 0 to 1

Note: ***, ** and * denote significant at 1%, 5% and 10% level, respectively. Values in the parenthesis are the z-statistics

Table 4. Determinants of early participation in BRAC Microfinance (Dependent variable takes "1" if loan is taken before December, 2005 and "0" if after 2005)

Regressors	marginal effect# (z-value)
Female headed household (1=Yes, 0=No)	-0.044 (-0.930)
Household size	0.006 (0.550)
Total amount of cultivable land (decimal)	0.005* (1.740)
No. of crises events faced in the past year	-0.005 (-0.370)
No. of cows/bulls owned	-0.036 (-0.880)
No. of goats/sheep owned	-0.007 (-0.340)
No. ducks/hens owned	0.001 (0.080)
No. of rickshaw/van owned	0.047 (1.340)
Self-perceived economic status (1=improved, 0=otherwise)	-0.058*** (-3.300)
Receiving government benefits (1= Yes, 0=No)	0.008 (0.270)
Faced chronic food deficit in the last one year (1= Yes, 0=No)	0.113* (1.650)
Respondent woman's age (years)	-0.004 (-0.620)
Had cash savings (1=yes, 0=no)	0.021 (0.480)
Had outstanding loan from informal source (1= Yes, 0=No)	0.059** (2.120)
Marital status of the respondent woman (1=married and living with husband, 0=otherwise)	0.075 (1.540)
Square of age of the respondent woman	0.000 (0.650)
Respondent woman's education (years of schooling)	0.001 (0.070)
Respondent woman's NGO membership (1= Yes, 0=No)	-0.100 (-0.740)
Respondent woman's disability (1=disability is present, 0=otherwise)	-0.099 (-1.420)
Member of separate VO (1=Yes, 0=No (member of merged VO))	0.069 (1.580)
Total number of male working aged members in the HH	-0.003 (-0.450)
Total number of female working aged members in the HH	0.002 (0.280)
Social asset index	-0.051 (-0.870)
Index of awareness of the respondent woman	0.216*** (3.040)
Index on ability to protest	0.105 (0.810)
Respondent woman is self-employed (1=self-employed, 0=otherwise)	0.069 (1.210)
Constant	1.991 (1.70)*
Area dummies	Yes
Pseudo R2	0.1155
No of observation	2097

#For dummy variable the effect is from 0 to 1

Note: ***, ** and * denote significant at 1%, 5% and 10% level, respectively. Values in the parenthesis are the z-statistics

Reasons for not participating in BRAC microfinance (self-reported)

After joining the CFPR programme, the participants are expected to build up a productive asset base, become equipped with new skills and confidence, and therefore be meaningfully able to participate in microfinance and continue to improve their livelihoods. However, everyone's background and situation are not similar. As a result some took loan immediately after the grant phase, some delayed for a while, and some never participated. Our earlier analysis shows that economic and demographic characteristics are related to the decision to participate in BRAC microfinance. In this section an attempt has been made to analyze self-perceived causes of not participating in BRAC microfinance.

Of the CFPR graduates who did not participate in BRAC microfinance, around 68% responded that they did not participate due to the fear of repayment related problems (Table 5). Around 15% did not require any loan at all. The reason for fear of repayment related problems being the major factor for not participating in microfinance may be due to the inexperience of the CFPR participants in taking credit from formal sources and the rigidity associated with the weekly repayment.

There is no reason to believe that the CFPR graduates who have not participated in BRAC microfinance by 2008 will not be participating ever because many graduates are taking time to apply for loans. However, depending on the circumstances and household endowments, borrowing may not always be a suitable strategy. Moreover, there are households which may feel that they do not require any credit at all. From qualitative case study, evidence of improvements in livelihood has been detected without having ever participated in microfinance (Annex B1). From this case study, we took an in-depth interview of a former graduate (Shahanoor) whose household has been following the approach of being involved in several IGAs and thereby devoting most of their time to earning income. Shahanoor saves as much as she can and, therefore, the household members are quite content with their financial status. She informed the researchers during interview that she did not require any loan. In fact she is earning through lending money to others in the neighbourhood.

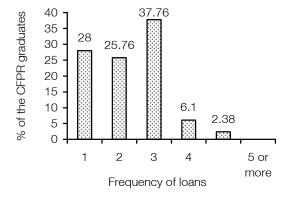
Table 5. Reasons for not taking loans (self-reported)

Reasons	Percentage of the CFPR graduates who have not taken loans
Did not require	15.18
Did not have scope for utilizing loan	3.53
Fear of repayment related problems	68.32
Applied for loan but refused	4.84
Others	8.12
Total	100

Frequency and size of loan

It has been observed that 28% of the women have taken only one loan and rest have taken more than one (Fig. 7). Thirty eight percent of those who participated were found to have taken three loans. Figure 8 shows size of the loans of the CFPR graduates and general microfinance borrowers. 12 The size of the loans is significantly lower for the CFPR graduates compared to the general microfinance borrowers of BRAC irrespective of the number of loans. For example, the size of the first loan of the CFPR graduates was Tk. 2,801 compared to Tk. 7,370 for the general microfinance clients of BRAC. Operation of smaller size loans may be associated with high costs. This indicates that CFPR graduates enjoy flexibilities in terms of loan sizes

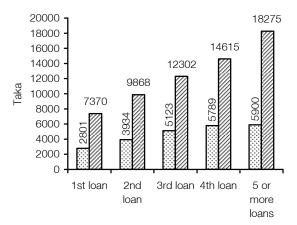
Figure 7. Distribution of CFPR graduates (who took loan from BRAC) by frequency of loans



Data for general microfinance borrowers was collected by BRAC-RED in 2009 for the study "Poverty outreach of BRAC microfinance."

Figure 8. Loan size of the CFPR graduates and general microfinance borrowers





participating in BRAC microfinance compared to normal microfinance operation. It was also found that loan size increased with the number of loans, but at a slow rate.

Use of loans

It has been observed that the highest percentage of the CFPR graduates used loans for initiating small business which often involves some sort of risk (Table 6). Investment in risky ventures reflects their improved level of confidence. Consumption expenditure was found to be one of the important

Table 6. Use of loan (Percentage of cases)

	1-	2.	3.	4.4	5∾
	Ioan	loan	loan	Ioan	loan
Small business	24	25	25	42	51
Medical expenditure	3	3	3	3	
Rickshaw/van purchase	7	7	7	6	6
Housing	14	14	14	12	9
Loan repayment	8	7	5	2	6
Consumption expenditure	19	15	11	6	3
Livestock purchase	4	4	4	5	
Mortgage in land	3	5	8	6	11
Land cultivation	7	7	8	10	3
Land purchase	4	5	6	4	6
Give others	3	4	5	2	
Others	7	8	8	8	6

Note: Multiple responses allowed

uses of loan but its share tends to decrease as the number of loans increases. Use of loan for consumption expenditure is not uncommon, particularly for the ultra poor; for example Das and Ahmed (2009) show that among the ultra poor who participate in microfinance about one-third of the loans are used for consumption expenditure. In comparison to that use of loans for consumption expenditure is relatively low for programme intervened households'. Other income generating activities (land cultivation, purchase rickshaw/van and livestock) account for about one-fourth of the loan use. House repair is also an important sector financed through microfinance loans by the CFPR graduates.

Impact of microfinance participation

As mentioned earlier, more than two-thirds of the **CFPR** graduates participated in **BRAC** microfinance. The key question is thus whether this participation helped them improve their To investigate the impact of livelihoods. participation in BRAC microfinance we have used income as an outcome variable. We have investigated impact on per capita income using simple difference-in-difference technique as well as difference-in-difference after controlling for baseline characteristics (i.e. 2002 characteristics). The key variables that we controlled in the difference-in-difference equation include ratio of earning members, physical and natural asset holding, age, sex and main occupation of the household head, having cash savings and number of crisis faced in the preceding one year. Beside we introduced a set of dummy variables for area offices to control for any differences in per capita income across different geographical locations.

Table 7 and 8 show simple difference-in-difference results for 2005 over 2002 and 2008 over 2002. It should be noted here that we have considered year 2002 as the pre-microfinance participation situation although the graduates started to participate in BRAC microfinance in 2004, because immediate information for pre-microfinance participation (i.e. for early 2004 or late 2003) was not available. It should also be noted that proportion of BRAC microfinance participants was higher in 2008 compared to 2005. It appears from Table 7 and 8 that difference-in-difference for per capita income in 2005 over 2002 is statistically insignificant but

that for 2008 over 2002 is statistically significant at 5% level. This indicates that in the short-run there was no impact on per capita income but in the long run impact was there. Controlling for baseline characteristics in the difference-in-difference regression, we find similar results (Annex A5). In the regression results presented in annex A5, coefficients of the variables *year 2005*BRAC loan as of 2005* and *year 2008*BRAC loan as of 2008* show the difference-in-differences for per capita income in 2005 over 2002 and 2008 over 2002, respectively. We find that coefficient of the *year2008*BRAC loan as of 2008* bears positive sign and it is statistically significant at 1% level, indicating that micro-

finance participation had positive impacts on per capita income in the long-run. This indicates that effective and meaningful participation in mainstream microfinance may help them smooth out the livelihood pathway that was initiated from the grant phase of the CFPR programme.

One of our case studies (Annex B2) shows how microfinance participation helped the CFPR members multiply her asset base and increase income. Tahamina took four consecutive loans from BRAC and the loan was mostly used for productive purposes. She now plans to take another loan for buying more land.

Table 7. Impact of microfinance participation, difference-in-difference for 2005 over 2002

		2002			2005					
	CFPR graduates who took loan	CFPR graduates who did not take loan	Difference	CFPR graduates who took loan	CFPR graduates who did not take loan	Difference	ct (DiD)			
Per capita income (Tk., 2002 constant price)	2457	2491	-34	4448	4290	158	193			
No. of observations	1049	1078		1049	1078					

Note: none of the differences and difference-in-difference is statistically significant at 10% level.

Table 8. Impact of microfinance participation, difference-in-difference for 2008 over 2002

		2002			2008		Impact
	CFPR	CFPR	Difference	CFPR	CFPR	CFPR	(DiD)
	graduates who took	graduates who did		graduates who took	graduates who did	graduates who took	
	loan	not take loan		loan	not take loan	loan	
Per capita income (Tk., 2002 constant price)	2470	2489	-19	7616	7239	376**	393**
No. of observations	1410	717		1410	717		

Note. ** denotes significant at 5%.

CONCLUSION

Challenging the Frontiers of Poverty Reduction (CFPR) programme was designed to address extreme poverty in a sustainable manner. The intensive support in the grant phase creates a platform for the ultra poor which enables them to overcome the socioeconomic constraints on their livelihoods and then pursue their development and well-being by taking advantage of the conventional development programmes like microfinance. This programme is designed in a manner so that after receiving all these supports from BRAC for two years, they are made to form small groups where they are offered small credit from BRAC microfinance programme. Using a longitudinal panel data (2002, 2005, 2008), this study provides a deeper insight into the graduated CFPR members' (from phase I) participation in financial market with particular focus on participation in BRAC microfinance.

It has been found that due to programme intervention, women's participation in the credit market increased significantly. We also found that about one-fifth of the SUP (selected ultra poor) had outstanding lending against 6% of NSUP (not selected ultra poor) women in 2008, and almost all SUP women had cash savings against 34% of the NSUP women. This is an indication that many participant households were able to generate some surplus income after meeting the family expenditures. With regard to participation in BRAC microfinance, it was found that 69% of the CFPR graduates took at least one loan from BRAC, and about 54% of the graduates were found to be active borrowers in the end-line survey (2008). Demographic factors like marital

status, total number of male working aged members in the household and others like being in separate VOs and level of awareness about social and public issues have positive influences on the decisions to take loan from BRAC microfinance. We also found that participation in microfinance had positive impact on per capita income of the participant households. This effective and indicates that meaninaful participation of the CFPR graduates in microfinance may help them to have a better livelihood after coming out from the grant phase.

Participation of the CFPR graduates in BRAC microfinance was not an automatic process. Nearly 50% of the graduates did not participate in BRAC microfinance just after the grant phase. They took time to decide whether to take a loan or not. This early adoption of microfinance was strongly self-perceived economic status like presence of loans from informal sources, being in separate VOs and level of awareness of the CFPR graduates before their participation in the programme. Flexibilities provided programme for microfinance participation such as the provision of smaller loans, giving them time for taking loan and separate VOs wherever possible are likely to play key roles in integrating the targeted households into microfinance. Even though these flexibilities entail a cost to the programme, their continuation is important for effective and meaningful participation of the CFPR graduates in BRAC microfinance. Since programme is being scaled up largely, it is now a matter of challenge how/whether the programme can continue these flexibilities to the large number of CFPR graduates in future.

REFERENCES

Ahmed AU, Rabbani M, Sulaiman M, Das NC (2009). The impact of asset transfer on the livelihoods of the ultra poor. Dhaka: BRAC. (Research monograph series 39)

BBS (2004). Report on labour force survey 2002-2003. Dhaka: Bangladesh Bureau of Statistics (BBS), GoB.

Das NC and Ahmed S (2009). Profile of the other targeted ultra poor. *In:* Pathways out of extreme poverty: findings from round I survey of CFPR phase II. Dhaka: BRAC: 235-54.

Das NC and Misha FA (2010). Addressing extreme poor in a sustainable manner: evidence from CFPR programme. Dhaka: BRAC. (CFPR working paper no. 19)

Hashemi S (1997). Those left behind: A note on targeting the hardcore poor. *In:* Wood GD and Sharif IA (Editors). Who needs credit? poverty and finance in Bangladesh. Dhaka: The University Press Limited.

Hashemi SM, Schuler SR, Riley AP (1996). Rural credit programs and women's empowerment in Bangladesh. *World Dev* 24(4):635-53.

Khandker S (2003) Microfinance and poverty: evidence using panel data from Bangladesh. Policy Research Working Paper 2945. Washington, DC: World Bank.

Khandker SR. (2005). Microfinance and poverty: evidence using panel data from Bangladesh. *World Bank Econ Rev* 19;3:1-25.

Mallick D (2009). Microfinance and moneylender interest rate: evidence from Bangladesh, Dhaka: BRAC (Research monograph series 42).

Pitt M, Khandker S, Cartwright J (2003). Does microcredit empower women? evidence from Bangladesh. Washington, DC: World Bank. (Policy research working paper 2998).

Rahman A and Razzaque A (2000). On reaching the hard core poor: some evidence on social exclusion in NGO programs. *Bangladesh Dev Stud* 26(1):1-36.

Sinha S and Matin I (1998). Informal credit transactions of microcredit borrowers in rural Bangladesh. *IDS Bull* 29;(4):66-80.

Sulaiman M and Matin I (2009). Making microfinance work for the extreme poor: evidence and experiences from Bangladesh. *ADB Newsletter* Mar 2008;9(1):1-11.

Sulaiman M, et al. (2006). Microfinance engagements of the graduated TUP members. Dhaka and Ottawa: BRAC and Aga Khan Foundation Canada. (CFPR-TUP working paper series no. 9)

Zaman H, et al. (2005). The economics and governance of non governmental organizations (NGOs) in Bangladesh. Washington DC: World Bank. (Consultation draft)

http://www.lcgbangladesh.org/NGOs/reports/NGO_Report_clientversion.pdf (accessed on 20 October 2010)

ANNEX A

Annex A1. Basic socio-demographic characteristics of the SUP and NSUP households in the baseline (2002)

	NSUP	SUP	Difference
	(1)	(2)	(3=1-2)
Average House hold size	3.90	3.65	0.24***
Single member household (% of HHs)	8.57	11.64	-3.07***
Female headed household (% of HHs)	27	43	-16***
Average number of working age members in the household	2.14	1.91	0.22***
Average number of adult earning members in the household	1.91	1.76	0.14***
Average of earner to member ratio	0.56	0.57	-0.01
Owned homestead land (% of HHs)	61.58	48.07	13.50***
Owned self-cultivable land (% of HHs)	6	1	5***
Owned livestock (% of HHs)	17	8	9***
Average number of IGAs per household	2.97	2.75	0.21***
Average per capita annual income (Tk.)	2784	2493	292***

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

Annex A2. Impact on credit market participation

		2002)		2005)		2008	DiD	DiD	
	SUP	NSUP	Difference	erence SUP NSUP Difference SUP NSUP		Difference	(Impact in 2005 over 2002)	(Impact in 2005 over 2002)			
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)	(10=6-3)	(11=9-3)
% of households with outstanding loans	26	38	-12***	73	63	10***	55	42	13***	22***	25***
Outstanding loans (Tk.)	1161	2542	-1381***	2220	2200	20	2833	3695	-862***	1402***	519**

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

Annex A3. Impact on lending

		2002			200	5	2008			DiD	DiD
	SUP N	NSUP	Difference	SUP	NSUP	Difference	SUP	NSUP	Difference	(Impact in 2005 over	(Impact in 2005 over
										2002)	2002)
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)	(10=6-3)	(11=9-3)
% of households with outstanding lending	0.5	1.3	-0.7**	8.3	4.2	4.1***	19.1	6.4	12.6***	4.8***	13.3***
Amount of outstanding lending (Tk.)	1623	3296	-1673	2187	2404	-217	8761	7727	1033	1456	2707

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

Annex A4. Impact on savings behaviour

		200	2		2005			2008	3	Impact in	Impact in
	SUP	NSUP	Difference	SUP	NSUP	Difference	SUP	NSUP	Difference	2005 over 2002 (DiD)	
	(1)	(2)	(3=1-2)	(4)	(5)	(6=4-5)	(7)	(8)	(9=7-8)	(10=6-3)	(11=9-3)
Had cash savings (% of respondents)	8.44	20.5	-12.06**	94.31	29.85	64.46***	97.73	34.42	63.31***	76.52***	75.37***
Amount of saving in BRAC (Tk.)							1158				

Annex A5. Impact estimate of microfinance participation, double difference regression results after controlling for baseline (2002) characteristics

	Regression 1 (2002-05)	Regression 2 (2002-08)
Year 2005=1	1782.3 (19.44)***	-
Took BRAC loan as of 2005 (Yes=1, No=0)	157.4 (2.19)**	=
(Year2005)*(Took BRAC loan as of 2005)	203.7 (1.61)	-
Year 2008=1		4748.6 (28.83)***
Took BRAC loan as of 2008 (Yes=1, NO=0)		175.6 (2.18)**
(Year2008)* (Took BRAC loans as of 2008)		395.9 (1.92)*
Ration of earning member	3289.5 (20.08)***	3234.8 (12.45)***
Sex of household head (Female=1, Male=0)	231.6 (3.18)***	563.4 (4.77)***
Age of the household head (years)	33.1 (2.35)**	43.8 (1.49)
Square of age of household head	-0.4 (-2.42)**	-0.4 (-1.06)
Head's main occupation (Day labor=1, others=0)	71.7 (1)	219.6 (1.92)*
Total amount of cultivable land (acres)	-8.8 (-1.23)	0.4 (0.03)
No. of cow/bull	324.7 (2.3)**	431.8 (2.48)**
No. of goat/sheep	116.3 (1.81)*	13.3 (0.17)
No. of duck/hen	53.2 (2.99)***	58.9 (1.68)*
No. of rickshaw/van	-9.6 (-0.14)	-68.6 (-0.53)
Had cash savings (Yes=1, No=0)	153.1 (1.37)	463.2 (2.45)**
No of crisis faced in the last one year (i.e. before 2002)	-77.8 (-2.41)**	-92.7 (-1.85)*
Constant	-503.7 (-1.52)	-1226.6 (-1.85)*
R-square	0.27	0.41
No of observations	4199	4199

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

ANNEX B

Annex B1. Shahanoor improved her livelihoods through participating in CFPR programme but she did not feel the necessity of credit

Status before programme participation

Shahanoor's small family with her only son and husband was going well. Even though her husband used to work as agriculture day labourer, she did not face hardship since they had some cultivable land (10 decimals) of their own. But unfortunately, all of a sudden her husband fell sick and remained bed-ridden for several months. Thus, Shahanoor was left with no other options rather than selling off half of their cultivable land for meeting family expenditure. The dowry money that Shahanoor's father gave her husband (Tk 10,000) was used for her husband's treatment. Eventually she had to start working as a day labourer to maintain her family. In the mean time, their household size grew up to five members with their two more children. So, Shahanoor was selected as CFPR beneficiary.

Status after programme participation

Shahanoor was selected as a CFPR programme participant following a participatory rural appraisal and final verification by BRAC staff. She opted for poultry rearing as the income generating enterprise and subsequently received three day training on poultry. She started to rear chicken well and after a while started to earn around Tk. 200 per week by selling eggs. However, she did not give up day labouring. She did that whenever she got time. Her husband, by that time, also recovered and started working again. As a result, Shahanoor could save all the earnings from the sale of eggs in TUP savings account. When the hens stopped producing eggs, she gave them to the BRAC staff to sell. With the money, she was provided with a second round support of chickens. However, this time it became harder for her to make profits at the same rate as before, because she had to bear all the input costs especially the cost of the feed on her own. Previously BRAC supported her by providing free poultry feed for the first seven months. Even then she managed to add to her savings and finally

when she sold the second batch of hens, the BRAC staff bought her a cow for Tk. 10,000.

Shahanoor and her husband worked in the fields and looked after the cow. After a while her eldest son left school and started working as a mason. He started earning around Tk. 100-150 per day. She then sold the cow for Tk. 20,000 and leased in some cultivable land (about 8 decimals). In the last year, they grew about 20 mounds of rice in this land. They sold the rice and part of the sale proceeds was lent out to their neighbours. Shahanoor earned Tk. 100 per month from the interest of the lending money (Tk. 5,000). Even while Shahanoor was interviewed, she was not sitting idle. She and her daughter who now goes to BRAC school prepare biri for the nearby tobacco factories. From this she earns about Tk. 60-70 per week. Though Shahanoor has money coming in from so many sources, she still plans to go on working as a day labourer on other's land, to accumulate more savings for future.

Despite all these achievements, Shahanoor has not participated in BRAC's microfinance programme and probably will not do so any time soon as she indicated. She mentioned that she did not need to borrow any money. She is quite aware that her chance of getting a loan is quite high now.

Points to note

- Hard work and wise planning helped Shahanoor improve her livelihoods
- She has some outstanding lending
- She did not take any loan from BRAC microfinance because according to her she did not require any credit

Annex B2. Microfinance participation helped Tahmina expand her asset base

Status before programme participation

Tahmina got married with Mahfuzur when she was eighteen years. Mahfuzur did not have any land of his own and used to live in a local school teacher's house. In return, he often did

household chores and other work as and when necessary. After Mahfuzur's marriage with Tahmina, the school teacher allowed them to build a house in the fallow land behind his house. Mahfuzar used to work as a day labourer but his meagre income of Tk. 15 to 20 per day was not enough to meet the basic needs. Two years after they got married, they had their first daughter followed by a son. For the four member household, Tahmina found her husband's unsteady income insufficient. Sometimes they could not afford even one meal a day, especially during the lean seasons. She thus had to take up casual work to supplement her household income. She often worked as house maid in return for one meal a day and sometimes as day laborer as well. Tahmina married off her elder daughter with a poor man. Since her family's economic condition was not good, she was unable to pay dowry and thus she could not manage to marry her daughter off to a well-off family.

In 2001, BRAC staff visited her household and offered her microfinance along with training. Tahmina mentioned, "They advised me to buy a sewing machine with the loan. They also assured that they would provide necessary training so that I can repay the loan by sewing clothes. But I refused to take loan as I realized that since most of the people in the village are poor and are known to me, they may not pay the due amount in time. If I force them or argue with them, my relationship with them may suffer. This will eventually lead to my failure to repay the loan in time."

Status after programme participation

Following a participatory rural appraisal in 2002 and after final verification, Tahmina was selected for the CFPR support. She opted for cattle rearing. She mentioned that the training was very effective as she came to know how to take care, medicate, monitor, feed, and diversify her cattle asset base. She was also provided with tin and bamboo for building shed for her cattle. Since she had to take care of her cows, she stopped working outside. She informed the researchers, "With the first instalment of subsistence allowances (about Tk 1200), I bought a *chowkey* (pallet). Before that, all of us used to lie in mats." Using the weekly stipend, Tahmina was able to provide her family with three meals a day. After

receiving the assets, Tahmina's daily chores increased substantially as she started to spend considerable amount of time in looking after her cows.

After five months of receipt of assets, one of her cows gave birth to a calf. She started to sell milk and saved some money on a regular basis. As per the advice of the BRAC Programme Organizer, she bought some chicken with her savings on a regular basis. Within few months she started to have eggs from her hens. Equipped with the earning from her enterprise and a weekly subsistence allowance, she gradually began to improve her socio-economic status. In the meantime, her elder son also started to work as day labourer. This helped to bring about some additional income to her household. By the end of the support phase, she had two more cows and few hens in addition to the original asset given by BRAC.

Soon after her graduation, she took a loan of Tk. 3000 from BRAC, with which she bought her eldest son a rickshaw van. She took a second loan of Tk. 5,000 and leased in 10 decimals of land. Now her husband and her second son work in the field and get half the share of whatever crop they produce.

In 2006, Tahmina sold two calves for Tk. 7,000 and Tk 13,000, and she used the money to purchase three decimals of homestead land. There she built a tin roofed house and fulfilled her lifelong desire of having a house of her own.

In 2007, she took loan for third time of Tk. 4,000. She used this money to pay dowry for her second daughter's marriage and she used the money earned through the sale of milk to repay the loans.

Within the two years of support phase, she was not only successful in multiplying her original asset base received from BRAC, but also diversified her sources of income through initiation of new enterprises. Along with her hard work and determination, she pointed out that the cooperation of other family members was important for the success of her enterprise.

Tahmina now lives in her own house with her family. Though she has made remarkable progress over the years with the help of BRAC,

she still feels there is still scope for improving her status. Now she is planning to purchase 10 decimals of cultivable land worth Tk. 45,000. She is saving whatever she can and is going to take loan from BRAC again to realize her dreams.

Points to Note

- Before participating in CFPR, Tahmina was reluctant to take loan. But after graduation, she took four loans from BRAC and plans to take more. This actually indicates how programme participation enabled SUP households to actively participate in microfinance for their well being.
- 2. Tahmina used her accumulated earnings from the enterprise to diversify her asset base along with maintaining the original asset base.
- 3. In most cases, she used the micro credit for productive purposes, and this allowed her to bring about sustainable livelihood improvements.

Annex B3. Alekjan does not want to take anymore loans from BRAC as she does not want to leave behind any debts in her name after her death

Status before programme participation

Alekjan was married at an early age and was leading a happy life with her husband who was a day labourer. But she was only in her early twenties when her husband died just after the liberation war. Her husband's untimely demise left her stranded with two children, a son and a daughter, to confront the harsh reality of a war torn country. Only when she was trying to get over the grief of her husband's loss and start afresh, her only son also passed away because of illness. The agony of losing both her husband and the only son within such a short span of time was unbearable to her. Furthermore, her in-laws denied her of her property rights as she didn't have a son then. Then it was all up to her - not only to maintain her livelihood but also to raise her daughter and marry her off well.

She took up whatever work opportunities were available - sometimes she used to work as a house maid, sometimes as a day labourer in the

tobacco fields. She used to earn a meagre salary of Tk. 10-15 per day for working full day in the field. When she worked as a house maid, she mostly received meals for a day in return. Since work opportunities were scarce and she used to get less than the male counterparts, she had real difficulty to provide food for her family. "It was really a difficult time for us. Often we had to skip meals or keep half fed", she pointed out. However, even amongst all the difficulties, she made her daughter study up to class five in a government primary school and married her off at the age of 15. Her in-laws and neighbours helped her in marrying her daughter off. After her daughter's marriage, she started to live her life alone.

But as years went by, it was becoming increasingly difficult for her to work every day and constantly provide even one meal a day for herself. As she grew old, continuous hard work and malnutrition started to take toll on her physical health. Her daughter wanted to help her from time to time but being an independent/self-dependent women all her life she was unwilling to take any help from her and be a burden to her daughter's family.

Status after programme participation

In 2002, Alekjan was selected as extreme poor and was invited to join the CFPR programme. As part of the grant support, she received two cows from BRAC. She also received cattle feed, medicine and tin for building the shed for her cows. After receiving the assets, she started to spend considerable time for taking care of her cows. Alekjan used to gather grass for her cows, feed them and took them to graze in the nearby char areas. The weekly subsistence allowance allowed her to forgo the other income earning options and to stay at home to take care of the cows. However, she worked as house maid whenever she had an opportunity leaving her grandson to take care of the cows in her absence.

She considered the assets that she received from BRAC as a windfall and she knew that this was a life time opportunity for her to realize her lifelong dreams of having something of her own. She worked really hard for the sustenance and growth of her assets. BRAC staff made weekly visits to her house and provided necessary guidance for

the improvement of her enterprise. She also came to know about basic health issues and legal rights from the meetings with BRAC staff.

With her determination and hard work, Alekjan was able to multiply her assets. Towards the end of the two year support phase, she had two cows and two calves. She sold the two calves and saved some money with BRAC. She used the rest of the amount to lease in land for a year to cultivate tobacco. She herself worked in the field along with her daughter and son-in-law. In this way, she was able to diversify her asset base.

Before joining the CFPR programme, her house was in a bad shape. She was able to repair her house with her savings. However, she still does not have a sanitary latrine. Her main source of drinking water is a nearby government tube well.

After graduation from grant phase, Alekjan was not interested at all to take loan from BRAC. She thought she had limited scope for using loan. Moreover, she has always been apprehensive regarding the weekly repayment. She considered the rigid schedule of weekly repayment inappropriate for agricultural day labourers like her. However, Alekjan took couple of loans upon the insistence of her daughter. Her daughter used the loan to lease land and cultivate tobacco. As her son-in-law had difficulties in repaying the second loan in time, she decided not to take any more loans. When asked whether she wants to take any more loans in the future, she replied, "I

am obligated to repay the loan in time, if I die after taking the loan, who is going take the responsibility to repay my loan."

Imbued with growing self-confidence and increased awareness of her rights, she went to the local Union *Parishad* Chairman and convinced him to give an 'elderly allowance card'. She has been receiving this allowance for the last four years.

Last year, Alekjan sold all of her cows to buy 15 decimal of cultivable land in her daughter's name. Her daughter and son-in-law are cultivating tobacco on that land. She invested in land as she considered it to be as a more stable/less risky source of income. Moreover, it was becoming more difficult for her to take care of the cows.

Every one to two months, her daughter sends a bag of rice (around 50 kg) for her. Still now she sometimes works in tobacco fields and also as housemaids. When asked, why she sold her assets to buy land in her daughter's name and how she plans to pass the rest of her days, she replied that she wanted her daughter to have a more secured life. She also said God would take care of her which reflects her pessimistic attitude.

Alekjan was also able to acquire 20 decimals of land for her daughter from her in-laws house. This reflects increased awareness and confidence in her ability to establish her rights.