

# Microfinance Engagements of the 'Graduated' TUP Members

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CFPR/TUP Working Paper Series No. 9

February 2006

Published by:



**BRAC**

**Research and Evaluation Division**



**Aga Khan Foundation Canada**

Funded by:



**Canadian International Development Agency**

## CFPR-TUP Working Paper Series No. 9

This working paper is published under the BRAC-AKFC Learning Partnership Project for CFPR/TUP with funding support from the Canadian International Development Agency (CIDA). The goal of the project is to contribute to improved poverty reduction and poverty targeting policies and practices. This partnership project supports the generation and dissemination of lessons, models, methodologies and best practices from CFPR/TUP to other organizations and practitioners around the world with an interest in reaching and serving the needs of the ultra poor.

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February 2006

Cover design  
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Publisher:

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BRAC/RED publishes research reports, scientific papers, monographs, working papers, research compendium in Bangla (*Nirjash*), proceedings, manuals, and other publications on subjects relating to poverty, social development, health, nutrition, education, gender, and environment.

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## FOREWORD

Over a quarter of Bangladesh's people live in extreme poverty, not being able to meet even the barest of the basic needs. They spend most of their meagre, unreliable earnings on food and yet fail to fulfil the minimum calorie intake needed to stave off malnutrition. They are consequently in frequent poor health causing further drain on their meagre resources due to loss of income and health expenses. More often than not, the extreme poor are invisible even in their own communities, living on other peoples' land, having no one to speak up for them or assist them in ensuring their rights. Extreme poverty also has a clear gendered face – they are mostly women who are dispossessed widows, and abandoned.

The extreme poor are thus caught in a vicious trap and the story of denial and injustices tend to continue over generations for a large majority of them. Thus, a vast majority of the extreme poor in Bangladesh are chronically so. The constraints they face in escaping extreme poverty are interlocked in ways that are different from those who are moderately poor. This challenges us to rethink our existing development strategies and interventions for the extreme poor, and come up with better ones that work for them. This is the challenge that drove BRAC to initiate an experimental programme since 2002 called, 'Challenging the Frontiers of Poverty Reduction: Targeting the Ultra Poor' programme. The idea to address the constraints that they face in asset building, in improving their health, in educating their children, in getting their voices heard, in a comprehensive manner so that they too can aspire, plan, and inch their way out of poverty.

The extreme poor have not only been bypassed by most development programmes, but also by mainstream development research. We need to know much more about their lives, struggles, and lived experiences. We need to understand better why such extreme poverty persists for so many of them for so long, often over generations. Without such knowledge, we cannot stand by their side and help in their struggles to overcome their state.

I am pleased that BRAC's Research and Evaluation Division has taken up the challenge of beginning to address some of these development knowledge gaps through serious research and reflection. In order to share the findings from research on extreme poverty, the 'CFPR/TUP Research Working Paper Series' has been initiated. This is being funded by CIDA through the 'BRAC-Aga Khan Foundation Canada Learning Partnership for CFPR/TUP' project. I thank CIDA and AKFC for supporting the dissemination of our research on extreme poverty.

I hope this working paper series will benefit development academics, researchers, and practitioners in not only gaining more knowledge but also in inspiring actions against extreme poverty in Bangladesh and elsewhere.

**Fazle Hasan Abed**  
Chairperson, BRAC



## **Microfinance Engagements of the 'Graduated' TUP Members**

### **ABSTRACT**

Despite the slogan of 'credit for the poorest of the poor', the poorest have not fully benefited from the microfinance revolution of late 90s in Bangladesh. To bring these 'left out' group into the mainstream microfinance, BRAC's CFPR/TUP programme assists them to build-up an asset base (physical, human and social) so that they can have meaningful participation in microfinance activities. After the 'grant' phase of the programme which lasts for 18 months, as the first step towards the 'graduation process', the ultra poor women form their own groups and are offered small amounts of credit. This study takes a look at the beneficiaries who were selected at the first round in 2002 to explain various dimensions of their engagement with microfinance. With a lower borrower-member ratio and relatively smaller sized credit, microfinance for the poorest may take longer to achieve sustainability. Even within the ultra poor household group, the better-off ones are more likely to engage themselves with microfinance. Their engagement in semi-formal microfinance does not reduce involvement in informal financial market. Along with credit, accumulating savings is of utmost importance for the ultra poor households and their informal savings have increased. Given that almost a quarter of the TUP members may not be credit takers, the importance of appropriate savings products cannot be overemphasized. More innovations in this regard is thus critical.

## INTRODUCTION

Microfinance outreach in Bangladesh is now over 13 million which is almost 10% of the country's population. General discussion on microfinance in Bangladesh is now about issues of market saturation and stronger competition among the microfinance providers. However, this discussion based on aggregate statistics overshadows the cracks in the composition and distributional aspects of outreach – there are still significant pockets of hard to reach geographical areas in Bangladesh yet to be penetrated by microfinance. Moreover, specific segment of microfinance market is being incompletely served due to reliance on a single product and approach.

Despite the slogan of 'credit for the poorest of the poor' that permeated the microfinance revolution at least in the initial years, detailed empirical work especially during the second half of the 90s in Bangladesh clearly showed that the poorest were far less likely to be served by microfinance (Zaman 1998; Matin 1998; Morduch 1998). Recent empirical evidence suggests that the discussion around microfinance and the poorest need to shift from a binary categorization of 'participation and non-participation' to a better understanding of the quality of participation – the poorest who do manage to participate in microfinance compared to microfinance participants coming from other wealth groups, borrow far less frequently, borrow on average far smaller amounts and are far more likely to drop out of the microfinance system for long periods of time (Matin 2005).

Acknowledging the unique characteristics and constraints within which the poorest survive and more often than not remained trapped, of late several NGOs and government programmes are experimenting with different approaches to addressing extreme poverty. BRAC's 'Challenging the Frontier of Poverty Reduction/Targeting

the Ultra Poor (CFPR/TUP)' programme initiated since 2002 is one such initiative. After selecting the ultra poor through a rigorous process, they are provided with assets and relevant training to run the enterprises (Matin and Halder 2004; Munshi and Matin 2005)<sup>1</sup>. In addition they are provided various types of health and social development supports. One innovative aspect of the programme is to 'push out' the frontiers of poverty reduction by working at the institutional and policy level to bring about a more enabling environment and change the context within which extreme poverty is reproduced (BRAC 2001; Hossain and Matin 2004).

After the 'grant' phase of the programme which lasts for 18 months, as the first step towards the 'graduation process', the ultra poor women form their own groups and are offered small amounts of credit. The first round of 5,000 programme members had been selected in 2002 and had formed their own groups and had the microfinance offer by 2004. Therefore, it is important to understand the various dimensions of these 'graduated' members engagement with microfinance.

This study is based on a representative sample of the SUP women who joined the programme in 2002. The survey of 525 SUP households was carried out during the months of February and March of 2005. The sample was selected from 8 sub-districts of 3 north-western districts of Bangladesh where the CFPR/TUP programme was launched in 2002. Moreover, 479 of these households are sub-sample of a baseline survey conducted in 2002, which allowed us to investigate some of their changes that they may have had.

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<sup>1</sup> Those ultra poor selected and supported by the CFPR/TUP programme will be referred to as 'Selected Ultra Poor' or SUP hereafter.



After this introduction, the next section gives an account of SUPs' engagement in microcredit and discovers that achieving sustainable microfinance for the ultra poor can take considerable time. Section on quality of participation in credit activities explores the loan usage and repayment management of those who have already 'graduated'. Key findings of that section include the importance of income diversification to enhance sustained microfinance engagement. Moreover, shocks can cause discomfort of repay-

ment and subsequently dropout from credit activity. Section on informal credit market participation shows that engagement of ultra poor households in informal credit market increases with improved standard of living, and a substantial part of them may become lenders. Issues related to semi-formal savings are discussed in a separate section. Flexibility in deposit and withdrawal are important issues than earning interest for the microsavers.

## PARTICIPATION IN MICROCREDIT

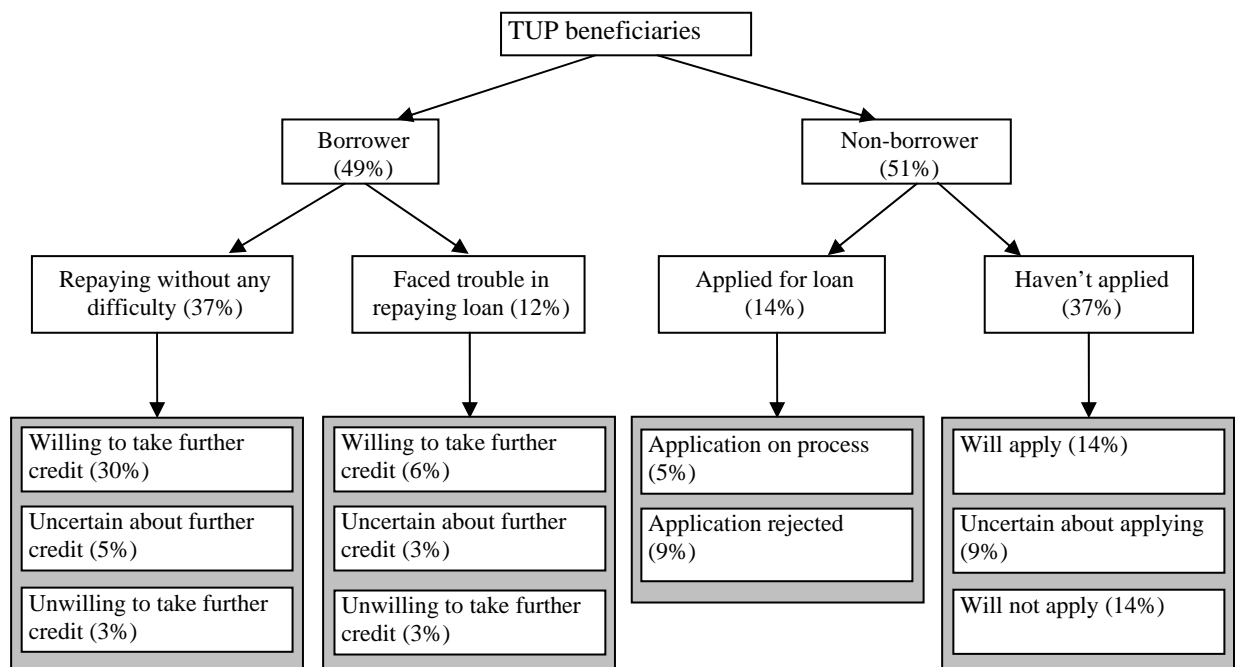
At the time of the survey, 49% of the 2002 SUPs had taken microcredit. However, the graduation process is not as straightforward as taking or not taking microcredit. Figure 1 shows different dimensions within borrowers and non-borrowers. Effective use of credit and regular repayment are critical variables that reflect the quality of graduation of the SUPs. Furthermore, continuation of microfinance participation is required for programme and/or organizational sustainability. On the other hand, among those who have not taken credit, some may not ever require taking credit, some may take credit in near future, and some others may not be offered credit at all.

About one-third of the SUPs have been repaying without any difficulty and likely to continue their engagement in microcredit representing the cases of successful 'graduation'.

On the other extreme, about 23% of the SUPs, who either failed to get a loan or are unwilling to take one; have very limited chance of taking credit in the near future. Remaining of the SUPs, who account for more than 45% are in the process of sustainable participation in microcredit.

Based on current status of borrowing and expressions of interest in future borrowing, we found that about 55 to 72% of the programme participants will be taking loans. This gives a borrower to member ratio which is much lower than the standard that exists (about 0.85) in the regular microfinance programmes in Bangladesh. Borrower-member ratio in Bangladesh is about 0.73 at an aggregate level (CDF 2005). Therefore, achieving a sustainable microfinance programme for the poorest may take a while.

**Figure 1. Status of SUPs of 2002 in February 2005**



### Characteristics of households by 'graduation' status

Efficacy of imposing the condition of taking microcredit as the sole criterion of graduation of the SUPs can be questioned since the condition implies that every household has to participate in microcredit. Depending on the circumstances and endowment profile of the household, borrowing may or may not be the most suitable strategy in sustaining and improving livelihoods. Therefore, we need to explore the differences and similarities among the SUP members who are micro-credit borrowers and non-borrowers. The non-borrowers can be further classified into potential borrowers and non-participants (the cases of denial and reluctant to borrow). Table 1 presents different household characteristics of these three groups of SUPs (borrower, potential borrower and non-participant).

Both the borrowers and potential borrowers are at more favourable position than the non-participants in terms of endowment characteristics such as average number of earners in household, in particular adult male income earner. In the dependency rate no significant difference is observed among the three groups. Female headship of the households is higher among the non-participants than the borrowers. However, the borrowers and potential borrowers are not significantly different in their demography.

More income earners resulted in greater income diversification for the borrowers but not for the potential borrowers. Though the potential borrowers have similarity in their demography with the borrowers, their income sources are similar to the non-participants. On average, each household of the borrower group is engaged in 3.36 Income Generating Activities (IGA) as

**Table 1. Features of borrowers and non-borrowers**

	Borrower (A)	Potential borrowers (B)	Non- participant (C)	Differences		
				A-B	A-C	B-C
<b>HH demography</b>						
Average number of earning members	2.45	2.36	1.96	-	✓	✓
Average number of adult male earners	1.16	1.04	0.76	-	✓	✓
Average number of Working age members	2.33	2.21	1.91	-	✓	✓
Household size	3.96	4.02	3.41	-	✓	✓
Average of earner to member ratio	0.674	0.642	0.658	-	-	-
Female headed households (%)	39	43	52	-	✓	-
<b>HH income</b>						
Average net weekly income (taka)	86	47	32	✓	✓	-
Average number of IGA per HH	3.36	2.84	2.73	✓	✓	-
Average number of IGA (regular all year round)	1.79	1.85	1.37	-	✓	✓
<b>Most important IGA</b>						
Day labour (% of HHs)	51	59	69	-	✓	-
Rickshaw/van pulling (% of HHs)	17	9	7	✓	✓	-
Non-farm micro-enterprises (% of HHs)	14	3	3	✓	✓	-
<b>Crisis coping</b>						
Number of crisis per HH	1.44	1.30	1.47	-	-	-
Loss/spend money on number of events per HH	1.37	1.28	1.40	-	-	-
Average money spent/lost for crises	2715	2379	2252	-	-	-
% of HHs faced damage of house	49	47	53	-	-	-
% of HHs faced serious illness of HH members	37	38	36	-	-	-
% of HHs faced loss of livestock	32	24	36	-	-	✓
% of HHs faced theft/decoy	4	1	0	-	✓	-
<b>Involvement in informal financial/non-financial transactions</b>						
% of HHs having outstanding cash debt	21	28	27	-	-	-
% of HHs having outstanding in kind debt	14	14	16	-	-	-
% of HHs having outstanding cash credit	15	9	9	-	-	-
% of HHs having outstanding in kind credit	4	2	2	-	-	-
% of HHs reporting increase in creditworthiness	93	83	82	✓	✓	-

Note: Differences significant at less than 5 percent level

opposed to 2.84 and 2.73 IGAs of the potential borrowers and non-participants respectively. However, the difference gets reduced when the number of IGA generating regular income is considered. The borrowers thus seem to be characterized by having diversified income sources into irregular or occasional activities. A significant portion of this diversification is likely to be the effect of the programme and their borrowings. In 2002, number of IGAs per household of those who were subsequently found to borrow and not borrow in the 2005 survey was 2.87 and 2.60 respectively. This small but significant difference has widened now. Moreover, a look into the types of activities reveals that assets provided by the CFPR/TUP programme such as cow, goat or poultry rearing account for more than 30% of all the IGAs reported. Households which have been better able to diversify their income sources by undertaking larger number of IGAs are much more likely to take on microcredit as greater diversification of income sources provides them better loan utilization and repayment management capabilities.

The households were asked to rank the income sources reported considering both its return and regularity. For majority of the households, day labour is the principal source of income followed by rickshaw/van pulling and different non-farm micro-enterprises. We found that the incidences of day labour as the most important IGA is lower among the borrowers. Since day labouring earns less income and has more uncertainty of employment, the households take up this activity when they have no other alternative to engage themselves. This is supported by the fact that average number of IGA for the households for which day labour is the most important income source is 2.83 with a comparable figure of 3.39 for the other households (difference is significant at <1% level). Therefore, with income diversification households' dependence on day labouring reduces and importance of non-farm activities increases. In subsequent analysis we found that involvement in non-farm businesses was an important factor in sustainable participation in credit in terms of need for subsequent loans and repayment ability. This corresponds with arguments that 'economically active' clients are

likely to participate and benefit from microfinance (Robinson 2001).

No significant difference among the three groups of households was observed in terms of their crisis coping and informal credit market participation. However, behind the aggregate figures there are some differences and some of them were found to be important determinants in their borrowing and saving.

### **Determinants of participation in microcredit**

Decision to borrow from BRAC is likely to be affected by the scope and ability of the households in making proper and productive utilization of loans. Having members of working age in the household is useful if not essential to make better use of loans. Members between the age of 15 and 65 were considered in working age group. Involvement in higher number of income generating activities will also enable a household to make better use of the money and manage repayment which is in regular weekly installments. Net income of the household reflects the repayment capacity. Households' attitude and prior experiences of borrowing can also be influential factors in demand side of borrowing decision.

Table 2 displays the marginal effects of the explanatory variables in the probit models where the dependent variable is taking microcredit. We see from equation 1 that for an SUP household which is average in all characteristics, an additional male member of working age increases the probability of taking credit from BRAC by 12 percentage points.

Direction and magnitude of the effect of working aged male members are same in all the four equations as expected. The opposite effect for female members is puzzling because it tells that an extra female member of working age reduces chances of taking microcredit by more than 11 percentage points. Closer look in this issue reveals that the presence of working age male in the household becomes more important in determining the probability of credit taking when the number of female adults increases. For an increase

in the number of adult male from 0 to 1 when the number of female is one and other values are at their means, the probability of borrowing increases by 7 percentage points. This effect becomes stronger to about 8 percentage points when the number of female is 2. The households have more female and less male members due to the design of beneficiary selection in the programme. However, this explains only a part of the negative effect of number of adult female.

Controlling for the number of adult males and female, female headship does not have any significant influence in borrowing. Number of income sources and net weekly income gives expected result. Having an extra income source is associated with about 7 percentage point increase in the probability of taking credit.

Negative effect of outstanding cash debt is not consistently significant. The number of crisis events that the households faced was not significant either. However, in the second equation, the interaction term between occurrences of crisis and outstanding cash debt is weak but significant. This term was used as a proxy for crisis led informal

borrowing which leads to slightly lesser chance of borrowing.

Attitude towards borrowing is also a significant factor of participation in microcredit. While quite a few households are habituated to borrowing, some others are fully risk averse. Though no question on attitude towards credit was asked in this survey, information from the baseline survey was used for this purpose. Not surprisingly, the households that reported (in 2002) their dependence on loans from *mahajans* during hardship have 14 percentage points greater probability of taking credit. Introduction of this variable does not make any qualitative change in other determinants except that the dummy for present outstanding credit becomes significant.

### Graduation of non-borrowers

Given a general pattern that better-off households have participated in credit, what chances are there for the non-borrowers to participate in future is an important issue. Figure 1 shows that 27% of the non-borrower SUPs have already applied for credit and 65% of these applicants were actually

**Table 2. Determinants of microcredit participation**

Variables	Marginal effects in probit model		
	Eq 1	Eq 2	Eq 3
Number of male HH members of working age	0.1228*** (3.08)	0.123*** (3.1)	0.1370*** (3.13)
Number of female HH members of working age	-0.11473** (-2.57)	-0.113** (-2.52)	-0.1362*** (-2.84)
Female headed households (1 if yes, 0 otherwise)	-0.0151 (-0.26)	-0.021 (-0.38)	-0.011 (-0.18)
Number of income sources	0.0683*** (3.05)	0.070*** (3.15)	0.0792*** (3.37)
Net weekly income	0.003*** (6.04)	0.003*** (6.06)	0.003*** (5.44)
Got loan offers from other NGO (1 if yes, 0 otherwise)	0.2096** (2.51)	0.217*** (2.6)	0.1945** (2.26)
Having outstanding cash debt (1 if yes, 0 otherwise)	-0.0876 (-1.56)	-	-0.1029* (-1.77)
Number of crisis events faced	0.0084 (0.34)	-	0.006 (0.24)
Interaction of credit and number of crises events	-	-0.046* (-1.86)	-
Whether takes credit from <i>mahajans</i> during hard times (1 if yes, 0 otherwise)	-	-	0.1379* (1.78)
N	525	525	478
Pseudo R <sup>2</sup>	0.1540	0.1531	0.1599

Note: Marginal effects of dummies are from 0 to 1. Figures in parenthesis are the Z values

\*, \*\* and \*\*\* significant at 10, 5 and 1 percent level respectively

not offered a loan. Among the others who were waiting for an approval, 55% made the loan application more than one month ago. This is higher than the standard waiting time that was found for the current borrowers. This suggests that a portion of these applicants may not be granted any loan.

The households who were denied a loan reported a number of reasons for the denial. More than half of the cases of rejection were due to the fact that they would not be able to manage repayment. The other reasons also indirectly point to their poor repayment ability as perceived by the lender.

Those who have not yet applied for loan, showed two major reasons for their lack of interest in borrowing. About 15% reported that they have plans to take credit at sometime this year and 9% do not require any credit at all. Others have reported their inability of repayment as the reason for not borrowing. However, over one-third of them have plans to borrow in future when they can make good use of it. It is interesting to note that two-third of the non-borrower non-applicants believe that they can get a loan from BRAC easily if they want to. Therefore, they have adequate access to credit but insufficient ability to make use of it.

## QUALITY OF PARTICIPATION IN CREDIT ACTIVITIES

Participation in microcredit, in itself, does not ensure improvement. In this section we look at the loan utilization, repayment management and need for further credit of the borrowers.

### Borrowed amount and utilization

The average loan size is Tk. 2,374 with a minimum of Tk. 1,000 and a maximum of Tk. 6,000. The average value of loan size that was requested for was slightly higher at Tk. 2,779. About 65% of those taking credit got a loan size that they had asked for. Not surprisingly, the average loan size demanded is significantly higher for the 'rationed' households (households who got less than they had asked for) at Tk. 3,543 compared to Tk. 2,359 of the other households.

In general, loan approval process was speedy. Fifty-nine percent of the TUP members who had loans from BRAC at the time of survey got it in less than 2 weeks of request, while 34% had their loan approved in within 2-4 weeks. For the remaining 4%, the approval took more than a month. The average loan size of TUP members who had to wait longer than two weeks was Tk. 2,519 while the corresponding figure for TUP members who got their loans faster (within 2 weeks) was Tk. 2,274. Relatively larger loans thus took longer to approve, which is not unexpected.

On average the households with micro-enterprise as the most important income source received credit of over Tk. 2,650 compared to Tk. 2,330 for other borrowers. This is understandable since engagement in non-farm business activities facilitates better utilization of loans. Figures in Table 3 corroborate this and some earlier points. About a quarter of the SUP members have passed the money received from BRAC loan to their sons' businesses. Sixteen percent of the borrowers used the money to increase access to land.

### Managing repayment

More than 75% of the present borrowers reported that they are able to manage larger loans. The median value of the current installment size is Tk. 60, while the corresponding value of installment which the TUP members reported to be able to manage comfortably is Tk. 100. Thus, average loan size is expected to grow in the future, which reflects a process of graduation.

The distribution of important sources of money for *kisti* corresponds, not surprisingly, with the important source of income of the household. For 44% of the credit taking households, income from day labour is the most important source of installment. Among the sources of secondary importance, there are earnings from livestock

**Table 3. Purposes of loan**

Purpose	Frequency (%)
Funding son's business	23
Purchasing / repairing rickshaw	20
Land acquisition (purchase/ mortgage in/ release mortgaged out land)	16
Agriculture	10
House repair	10
Non-farm business activities	9
Purchasing livestock	5
Repaying loans	3

(sales of eggs, milk, chicken, cow dung) and home based activities such as *katha* sewing and bidi making. Though microcredit helps them develop their asset and income base, scope of investment in activities from where they can repay the loans is limited. Therefore, households without some other sources of regular income are unlikely to benefit from borrowing or manage good repayment.

Nonetheless, three quarter of the borrowers reported that they have never faced problem in managing the installment amount, while 14% reported minor difficulties in repayment of 1-2 installments. Only 9% households are facing regular difficulties. Among the most frequent reasons for having difficulty are the illness of income earner and unavailability of work.

To explore the extent of repayment difficulties, the loan taking households were asked to

report incidences of events associated with extreme difficulty in repayment. Table 4 reports the extent of these incidences. When the households face difficulties in arranging the *kisti*, they might reduce consumption or borrow from fellow group members and neighbours. Prevalence of extreme difficulties is low. Indeed, more than 70% of the borrowing households never had to take any of these means listed and 15% took more than one means. Despite these problems, the overall rate of repayment is almost 100%.

Given the extent of variations in the ability of managing repayment, it is worth looking at the factors that determine comfortable repayment. The number of males of working age is important in determining repayment ability (Table 5). However, the number of adult female was not found a significant factor at all.

**Table 4. Incidences of severe repayment difficulties**

Means of repayment	HHs using the means (% of borrower)	
	Once	More than once
Withdrawal of savings to pay instalment	0	0
Sales/mortgage of assets	2	0
Borrowing from other members of the TUP group	3	6
Borrowing from relatives	5	10
Default/delay of instalment	4	7
Reduce consumption	3	16

**Table 5. Determinants of repayment without difficulties**

Independent variables	Marginal effects	Z value
Net weekly income	0.001	1.94*
Number of male HH members of working age	0.137	2.82***
Number of female HH members of working age	-0.003	-0.05
TUP member is the HH head (1 if yes, 0 otherwise)	0.094	1.64
Number of income sources	0.045	2.02**
Outstanding debt borrowed in cash (1 if yes, 0 otherwise)	-0.237	-3.37***
Outstanding debt borrowed in kind (1 if yes, 0 otherwise)	-0.358	-3.98***
House damaged (1 if yes, 0 otherwise)	-0.196	-3.71***
Business most important source of repayment (1 if yes, 0 otherwise)	0.120	1.94*
Size of the loan (thousand taka)	0.075	2.33**
N=257	Pseudo R <sup>2</sup> =0.2857	

Note: Marginal effects of dummies are from 0 to 1.

\*, \*\* and \*\*\* significant at 10, 5 and 1 percent level respectively



The TUP women being the household head seems to have positive effect on loan repayment though the effect is not significant. Having outstanding informal loans is negatively associated with ease of repayment and the marginal effects are quite high as well. A household with average characteristics in all variables but with outstanding cash loan has 24 percentage age points lesser chance of repaying installment without any difficulty. Incidence of house being damaged, probably reflecting the 2004 flood effect also reduces the chance of comfortable repayment. It is interesting that households with larger loans are more likely to be comfortable in repaying installments.

Even though a few households reported to be facing some difficulties in repayment, more than 97% households believed that their household situation have improved after taking microcredit. Moreover, 92% of the existing borrowing members reported confidence in their ability to repay *kisti* regularly. More than 75% of borrower SUPs reported that they could manage larger loans than what they have got at present.

### Demand for further loans

We have seen that 12% of the present borrowers are quite unlikely to take credit once completed the present cycle (Figure 1). About 16% may turn out to be irregular participants of credit activities. If the dropout is due to failure in reaping benefit from borrowing, sustainability of their graduation will be at stake. On the other hand, they may consider taking loans redundant for them and/or may have developed alternative sources of finance. However, the signs of the determinants of willingness to borrow after completion of present cycle suggests bit of both (Table 6).

Number of income sources and net weekly income are negatively associated with demand for further credit. On the other hand, those households who faced any problem in repaying the present loan have a significantly lower probability of being sure to take future loan. However, the ability to use larger loans is the most important factor of demand for further credit. Involvement in non-farm activities increases demand for further loans. Total money spent/lost for crisis events has a negative effect on the willingness to take further credit among the present borrowers.

**Table 6. Determinants of demand for credit continuation**

Variables	Marginal effects	Z values
Number of income sources	-0.053	-2.1**
Weekly net income	-0.001	-2.14**
Whether faced problem in repayment (1 if yes, 0 otherwise)	-0.192	-2.47**
Whether able to manage larger loans (1 if yes, 0 otherwise)	0.434	6.56***
Amount of outstanding cash loans (thousand taka)	-0.102	-2.78***
Having any non-farm business enterprise	0.270	3.62***
Total money spent on crisis events (thousand taka)	-0.012	-1.75*
N = 259	Pseudo R <sup>2</sup> = 0.30	

Note: Marginal effects of dummies are from 0 to 1.

\*, \*\* and \*\*\* significant at 10, 5 and 1 percent level respectively

## INFORMAL CREDIT MARKET PARTICIPATION

Though microfinance services allow the borrowers to break, to some extent, the bottleneck of credit constraints in improving their livelihood, informal transactions are necessary for meeting different other types of credit needs. Informal credit has greater flexibility than the services provided by the microfinance institutions. However, microfinance offers more choices to the households and it is possible that the availability of choices will allow them to have a better bargain. Moreover, access to microfinance can switch the position of the SUP members from credit taking to credit giving one (Sinha and Matin 1998).

Transacting petty amounts both in cash and in kind is quite prevalent among the poor households on reciprocal basis. These types of transactions constitute a strong source of mutual insurance. In our survey outstanding borrowing or lending of the value of more than Tk. 100 was considered and 45% of the SUPs reported involvement in informal credit in some form or the other. At the time of the survey 27% of the non-borrowing SUP households had outstanding debt taken in cash

(Table 1). Prevalence of informal borrowing in cash among the borrower group is lower than the non-borrowers. However, in the case of informal lending, the situation reverses between these two groups. No significant difference was observed in their engagement with transactions in kind.

Table 7 represents the changes in participation in informal transactions for the SUP households over time. Though borrowing in kind has become more common, the average size has declined by half. Most of the borrowings in kind are credit purchase from shops. This reflects improvement in their access to credit from shops and greater purchasing power. Most remarkable change has occurred in their lending situation. More households are engaged in lending, both in cash and in kind. About 15% of the SUPs are now involved as suppliers of informal credit. Overall, 88% of the SUPs consider that it has been easier for them to have access to informal credit since joining the programme. However, 92% of them feel a decline in their credit need.

**Table 7. Changes in informal credit market participation between 2002 and 2005**

Participation in informal credit	2005	2002	t value of difference
% of HHs borrowing cash loans	25.05	24.01	0.38
% of HHs borrowing kind loans	15.03	6.68	4.19***
% of HHs lending cash loans	11.9	0.42	7.60***
% of HHs lending kind loans	2.92	0.21	3.40***
Average size of cash borrowed (taka) <sup>a</sup>	880	859	0.110
Average size of kind borrowed (taka) <sup>a</sup>	318	634	2.707***
Average size of cash lent (taka) <sup>a</sup>	3382	300	-
Average size of kind lent (taka) <sup>a</sup>	4592	3500	-

<sup>a</sup> Outstanding amount per transaction of each form

\*, \*\* and \*\*\* significant at 10, 5 and 1 percent level respectively;

Significance of differences in the last two rows could not be calculated because of too few observations in 2002

Table 8 gives a break down of sources of their loans. Importance of *mahajans* and shops as sources of cash credit has declined for the SUP households between 2002 and 2005. However, in case of credits in kind, shops have become more

important source than neighbours. This reinforces the point made earlier that the programme participants have enhanced their purchasing power and relying more on purchase on credit than borrowing from neighbours.

**Table 8. Changes in sources of informal loans (cash and in kind) in 2002 and 2005**

Sources	Borrowed in cash		Borrowing in kind	
	Year 2005	Year 2002	Year 2005	Year 2002
Relatives	64 (43.54)	34 (29.06)	4 (5.00)	0 (0.00)
Friends	3 (2.04)	0 (0.00)	0 (0.00)	0 (0.00)
Neighbours	64 (43.54)	46 (39.32)	5 (6.25)	7 (21.88)
<i>Mahajan</i>	7 (4.76)	13 (11.11)	1 (1.25)	2 (6.25)
Shops	9 (6.12)	24 (20.51)	70 (87.50)	23 (71.88)
Total	147 (100.00)	117 (100.00)	80 (100)	32 (100)

## USAGE OF SAVINGS SERVICES

Average savings balance of the SUP members with BRAC is more than Tk.1,700. They start saving in a current account with BRAC accounts after joining the programme. After joining a VO, each member also opens a savings account. By definition and practice, current account has relatively greater flexibility in terms of deposit and withdrawal. Saving in the savings account requires a certain amount of saving each week and lesser flexibility but the savers earn interest. Most of the accumulated savings of these SUPs are in their current accounts. About 74% of the members keep more than 90% of their savings in their current account. This suggests relatively greater importance of flexibility than earning interest on savings.

### Savings withdrawal

Eighty-eight percent of the TUP members surveyed reported to have withdrawn savings from their TUP account. On average each of these TUP members withdrew savings over three times from their accounts since joining the programme in 2002. The distribution of the various purposes for which withdrawal was made is shown in Table 9.

Most of the withdrawals were made to meet the running cost of the TUP enterprises suggesting that TUP members are saving in this account when the yield is good and withdrawing from it to

manage the running cost as and when needed. Withdrawal for investment in other household enterprises is the next frequent purpose. For some TUP members the proceeds from a sale of a TUP asset is kept in the savings account and later used to purchase some other asset. In general, the predominant purpose of savings withdrawal appears to be for 'productive' uses pertaining to TUP assets or other household enterprises.

### Informal savings

Sixty percent of the surveyed households reported of having some form of informal savings. Savings in bamboo holes, mud banks and trunks are the most frequent forms of informal savings. Interestingly, 49% of those who reported of having informal savings said that they were saving more in informal ways after joining the programme, while another 23% said that they had started informal savings after joining the programme. This probably reflects the improvement in overall economic position of these households since joining the programme. It also reflects, more importantly, their future planning.

Table 10 shows the importance of savings for secured future, expressed in terms of saving for healthcare, seasonal food insecurity, natural disasters, etc. As direct support, especially in health, reduces for the TUP members after 18 months,

**Table 9. Purpose of savings withdrawal**

Purpose	% of withdrawals	Median size of withdrawal (taka)
Meeting maintenance cost of Brac assets	72	350
Changing assets	9	2,400
Investment in new enterprise	11	1,000
Other needs (emergency, health expenses, consumption, house improvement etc.)	8	235

they have to fall back on their own savings. Informal savings seem to serve that purpose.

An obvious question that arises is why these savings kept informally is not saved in their savings account with BRAC. Last two columns of Table 10 gives the responses we got when we asked that question. The responses reiterate the importance of flexibility. This is understandable since savings for emergencies should be easily accessible.

### Determinants of semi-formal savings

Given that almost 30% of the TUP members may not be credit takers, the importance of appropriate savings products cannot be overemphasized. In Table 11, we look into the determinants of the amount of semi-formal savings accumulated by the borrowers, where the dependent variable is the total savings with BRAC in current and savings accounts.

**Table 10. Savings at home**

Purpose for informal savings	Frequency (%)	Reasons for not preferring BRAC accounts	Frequency (%)
Meeting household emergencies	57	Cannot access the savings quickly when needed	45
For purchasing assets	20	Too small sums	29
Meeting household needs (clothing, mosquito net, <i>kisti</i> )	13	Cannot keep frequently and flexibly	10
Children's education	4	Feel in control if savings at home	16

**Table 11. Amount of informal savings with BRAC**

Variables	Eq 1	Eq 2	Eq 3
Constant	2219.75*** (8.48)	2189.44*** (8.45)	2318.33*** (8.42)
HHs' Earner-member ratio	-387.79* (-1.87)	-386.36* (-1.89)	-490.05** (-2.29)
TUP is the HH head	236.11** (2.27)	250.69** (2.46)	226.56** (2.1)
Weekly net income (taka)	3.30*** (4.15)	3.18*** (4.07)	1.94* (1.95)
Number of income sources	137.74*** (2.63)	133.21** (2.59)	146.39*** (2.75)
Interest information (1 if knows about interest earning in savings account, 0 otherwise)	188.87 (1.58)	226.35* (1.94)	165.52 (1.36)
Borrower (1 if yes, 0 otherwise)	188.20* (1.76)	193.34* (1.84)	230.97** (2.09)
Amount of cash loans given (thousand taka)	-33.67 (-1.27)	-27.70 (-1.07)	-27.89 (-1.03)
Continuing the initial assets (1 if yes, 0 otherwise)	658.33*** (6.34)	621.64*** (6.08)	669.10*** (6.21)
Number of assets accumulated	-48.48 (-1.22)	-30.22 (-0.77)	-10.56 (-0.25)
Number of crisis faced	44.76 (0.84)	—	—
Asset loss (1 if crisis event of asset loss occurred, 0 otherwise)	—	-267.89** (-2.55)	-274.27** (-2.46)
Health shock (1 if any of the HH members was serious illness, 0 otherwise)	—	385.35*** (3.77)	356.27*** (3.29)
Maximum time interval for savings withdrawal (days)	—	—	-2.90 (-1.18)
N	525	525	462
Adjusted R <sup>2</sup>	0.1463	0.1771	0.1801

Note: Figures in parenthesis are the t values of OLS

\*, \*\* and \*\*\* significant at 10, 5 and 1 percent level respectively

In literature, life cycle is identified as the most important factor of saving behaviour. Accordingly, households in better position in terms of earner and member ratio should have more savings, which also corresponds with general understanding of ability to save. However, the negative coefficient of earner-member ratio means that households with higher earner to member ratio tend to have lesser amount of savings with BRAC. This could be simply because such households can use the money rather than save. It is also possible that households with more earners indeed save more but do it individually. It is unlikely that all the individual savings will be put into the same accounts. Strong positive effect of TUP women being the house-hold head, perhaps, reflects her greater control over the household savings and the decision of where to put it.

Both weekly net income and number of income sources are significant and the coefficients have expected positive sign. In general, the borrowers save about Tk. 200 more than the non-borrowers do. One interesting finding is that knowing whether they receive interest on their savings account is positively associated with total amount of savings. It does not necessarily mean that they are sensitive to interest on savings because though they get interest on savings account, most of their savings are in their current accounts. Instead it reflects greater awareness of formal financial instruments and thus greater interest. It is possible that people consider giving loan to others from their cash savings instead of keeping it in the accounts. Though the amount of cash loans given has negative coefficient, it is not significant.

From the experience of the programme, it was found that some of the SUP members had to

change their initial enterprise support provided by the programme with something more suitable. On average, if the member did not have to change the asset, she is likely to have a savings of Tk. 650 more compared to those who altered the initial enterprise. Therefore, finding appropriate enterprise for the members is crucial.

Crisis does not seem to have any significant impact on the savings when only the number of crisis events faced in three years since joining the programme is considered (equation 1). However, classifying the crisis events into asset loss (such as livestock death, house damage, theft) and health shocks (serious illness in household) yields some interesting results (equation 2). Incidence of asset loss erodes the savings with BRAC by over Tk. 250 on average. Incidence of serious illness, however, has the opposite effect on savings. It reflects that these incidences generate an urgency of savings. There is also the possibility that they get 'looked after' by BRAC when such serious illness strike making them more 'loyal' and thus saving more with BRAC.

From the programme point of view, it is important to know the effects of restriction on savings withdrawal on the saving behavior of the SUP members. The maximum number of days that each household had to wait to withdraw their savings is introduced in equation 3. The coefficient is negative, small and insignificant. The finding resembles with the general reactions of the clients of microfinance on restrictions on savings withdrawal. Though inability to withdraw generates dissatisfaction among the savers, they also feel comfortable to have something in their greater hardship.

## CONCLUSION

In the third year of participation in the TUP programme, one third of the beneficiaries made successful engagement in the microcredit activities and likely to scale up their borrowing. While most of others are on the process of more fruitful involvement in microcredit, about a quarter may never participate in credit activities. With a lower borrower ratio and smaller loan sizes than the standard microfinance activities, TUP microfinance may take longer time to attain sustainability.

In general, the better-off households have associated themselves with credit activities though all are involved in savings. Having male members is important for better performing in credit. Households with some sort of non-farm activity in their income portfolio are most likely to make good use their involvement in microcredit.

Attitude of the households towards credit is also an important factor in this regard.

Participation in informal transactions has increased among the SUPs and some of them have become lenders reflecting their improved economic and financial condition. Though their informal credit rating have improved, need for borrowing from informal sources have declined. Their savings, both informal and with BRAC, have also increased to enable them better handle crisis events. Crises have far reaching influence on both semi-formal credit and savings. Different types of crises can work in different directions to influence savings and credit need of the households.

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