An Assessment of Poverty Outreach of Palli Daridro Bimochon Foundation (PDBF)

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Executive Summary

Introduction

This report is a poverty assessment of the clientele of the Palli Daridro Bimochon Foundation, a microfinance institution (MFI) based in Bangladesh. This analysis was conducted for the Canadian International Development Agency (CIDA). Its Asia Branch is the sole donor of PDBF.

In order to carry out the analysis, a tool developed by the Consultative Group to Assist the Poor (CGAP) and the International Food Policy Research Institute (IFPRI) has been used. It is a low-cost operational tool that allows the measurement of the relative depth of poverty outreach of MFIs. In this method, a household level poverty index is constructed based on indicators drawn from a simple household survey covering both clients of an institution and non-clients. Then, the poverty status of clients is assessed compared to a representative sample of non-clients.

In addition to this poverty outreach analysis, an additional review of MFI participation of the sample households is carried out in order to meet the interest of PDBF in gaining further understanding of the environment where it works. This has meant a brief addition to the questionnaire. Thus, this study addresses four issues:

- It presents the poverty profiles of PDBF members in relation to a representative sample of non-clients.
- It identifies the relative depth of PDBF's poverty outreach.
- It explores the levels of well being of PDBF clients and their respective areas relative to district-level and national poverty data.
- It provides some basic information on the overall microfinance market in PDBF's areas of operation under study.

Methodology

The survey included 1500 households from eight PDBF branch areas representing the spread of density of microfinance operations in Bangladesh. The ratio of 2 clients to 3 non-clients is intended to allow for greater variation in the non-client sample, which is used as the base to compare relative poverty of the clients.

The sampling method of the poverty assessment tool requires that only new clients entering the micro-credit programme be included in the survey. This is to ensure that client households that are studied have not yet been impacted by their participation in the MFI, which would bias the results of assessing poverty outreach of the program.

We first used the latest branch wise records kept in the PDBF Head Office to make a list of new clients defined as those who joined PDBF on or later than November 2002 for the sampled branches. From this list, we randomly selected 75 new PDBF clients from each branch giving a total of 599 PDBF clients. For the non-client sample, we used the client: non-client ratio of 1:1.5 with the village as a unit. So, for instance, if there were five sampled PDBF members from a village, we randomly selected seven to eight non-PDBF members from that village.

The questionnaire that was administered to the sample is based on the one developed in the manual explaining the CGAP/IFPRI tool (Henry *et al*, 2000). However, in order to take into account local idiosyncrasies, amendments had to be made to adjust for them.

Depth of outreach

In order to test for the robustness of the poverty index constructed using the Principal Component Method, we cross checked the poverty groups against a range of variables that have been shown in the poverty literature of Bangladesh to be reliable proxies of various poverty groups. The results suggest that the poverty index performs well.

The cumulative frequency distribution for clients and non-clients suggests that at the lower end of the poverty scores, PDBF clients fare better than non-clients. Around the middle of the distribution, this tends to reverse. Indeed, the curve relating to clients is consistently below that of non-clients up to 50% of the cumulative population distribution and vice versa after that. This means that for a given percentage of the population, the average score of clients is higher initially and then becomes lower than that of the non-client group.

Against this general conclusion that PDBF targets across the board rather than specifically the poorer segment of the population, the status of the population PDBF serves also needs to be judged relative to national and international levels of poverty. In relative terms, PDBF may not be dealing with the poorest, but given the standard of living of the country and of some of the branches, absolutely speaking, it is dealing with very poor people indeed.

The land based targeting indicator used by PDBF and most other microfinance institutions itself may be inadequate to be a pro-poor screen. We note that the PDBF client group includes a significantly higher percentage of households owning less than 50 decimals of land compared to the non-client group. To the extent that land based criteria is used extensively by programmes in rural Bangladesh as a pro poor screen, one may conclude that PDBF is pro poor in its targeting. Yet, when we examine the poverty score distribution, we note that PDBF's client groups consist of almost proportionate representation of the general cross-section of the community in which PDBF operates. In that sense, PDBF's land base targeting screen fails to be adequately pro poor in discriminating between the various poverty groups.

National and regional poverty ratios

To find poverty related indicators disaggregated at the district level, various sources are used. BIDS/UNDP (2001) map regional income poverty and find Bogra, Dinajpur and Jessore to have a poverty head-count index varying from 40.1% to 45%, Netrokona between 45.1% and 50% and Nilphamari more than 50.1%. In terms of human poverty, the same source maps a human poverty index. The latter consists of aggregate shortfalls in the following

dimensions: deprivation in overall economic provisioning, deprivation in knowledge, and deprivation in health (BIDS/UNDP, 2001). From this, it is found that all districts of this study to have a value comprised between 40.1% and 45% except Nilphamari whose index is in the 45.1% and 50% range.

Conte et *al* (2000) map the incidence of extreme chronic food insecurity (Figure 7) which they obtain using a principal component method in order to identify regional clusters of food insecurity in Bangladesh to enable a better targeting of food aid by the World Food Programme (WFP). We find that, generally speaking, the poverty level of the branches under study corresponds to the poverty level of the districts they belong to (except Netrokona). Because of its widespread presence across the country, PDBF deals with areas of varying degrees of poverty. Domar and Syedpur for instance are located in one of the poorest districts of Bangladesh, Nilphamari. In these branches, while the poorest may be under-represented, the majority of the population fare badly.

MFI membership dynamics

In order to provide PDBF with a general background to the overall microfinance market within which they are operating, we included a 'MFI Competition' module to the survey questionnaire, which was administered to all the sample households. We find that a large percentage (41%) of non-PDBF households are current participants of various other MFIs operating in the PDBF branch areas. We also find that the extent of multiple MFI participation of PDBF households (17%) is very close to that of non PDBF MFI participating households (20%).

The households that did not report MFI participation at the time of survey can be categorized into two types—(1) households who never had MFI participation, and (2) households that had past MFI participation but none at the time of the survey. A total of 970 households reported not having any MFI participation at the time of the survey and of these, 28% were of type 2 according to the categories above.

It is important for any microfinance provider to recognize that they are operating in market with several other competitors. The participation pattern of the clients is also becoming increasingly complex and fluid where long term retention of clients becomes a big challenge.

Our data suggests that in the PDBF areas where we drew our sample from, a large proportion of the non-PDBF households were already borrowing from different MFIs operating in these areas. Of those households who were not borrowing from MFIs at the time of survey, a significant percentage reported borrowing from MFIs in the past. Thus, though the percentage of non-participating households based on current participation is about 36%, the percentage of households who never participated in a MFI is only 26%. Among such households again, we find that a large section is not interested in participating in a MFI. Any strategy for horizontal expansion should consider these matters.

Studies that assess the poverty outreach of programmes yield important insights. The next step should be market studies that provide better understanding of the relationships between the livelihoods constraints and opportunities of the poor and the financial services on offer so that products and services can be further improved to better suit the ever-changing needs of the clients.

List of acronyms

BBS: Bangladesh Bureau of Statistics

BIDS: Bangladesh Institute of Development Studies

CGAP: Consultative Group to Assist the Poorest

CIDA: Canadian International Development Agency

HDI: Human Development Indicator

HES: Household Expenditure Surveys

HIES: Household Income and Expenditure Survey

IFPRI: International Food Policy Research Institute

MAP: Monitoring Adjustment and Poverty Project

PCA: Principal Component Analysis

PDBF: Palli Daridro Bimochon Foundation

MFI: Micro Finance Institution

RBI: Rural Bitaheen Institution

SEF: Small Enterprise Foundation

WFP: World Food Programme

Glossary

Bitaheen: rural poor

Upazilla: administrative unit

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I Introduction

This report is a poverty assessment of the clientele of the Palli Daridro Bimochon Foundation (PDBF), a microfinance institution (MFI) based in Bangladesh. This analysis was conducted for the Canadian International Development Agency (CIDA). Its Asia Branch is the sole donor of PDBF.

The specific aims of this study are to find out the degree to which PDBF serves relatively poor clients, to incorporate these findings into a broader description of PDBF's microfinance program, and to use these findings as a baseline for a new project phase.

In order to carry out the analysis, a tool developed by the Consultative Group to Assist the Poorest (CGAP) and the International Food Policy Research Institute (IFPRI) is used. It is a low-cost operational tool that allows the measurement of the relative depth of poverty outreach of MFIs. It constructs a household level poverty index based on indicators drawn from a simple household survey. Then, the poverty status of clients supported by micro-loans is assessed compared to a representative sample of non-clients.

The applicability of this tool has been previously tested on other countries' MFIs such as Small Enterprise Foundation (SEF) in South Africa. The methodology has been standardised so that international comparisons can be made. This can also help donors make informed decisions about funding allocations on the basis of an MFI's depth of poverty outreach.

In addition to this poverty outreach analysis, an additional review of MFI participation of the sample households is carried out in order to meet the interest of PDBF in gaining further understanding of the environment where it works. This has meant a brief addition to the questionnaire. Thus, this study addresses four issues:

- It presents the poverty profiles of PDBF members in relation to a representative sample of non-clients.
- It identifies the relative depth of PDBF's poverty outreach.
- It explores the levels of well being of PDBF clients and their respective areas relative to district-level and national poverty data.
- It provides some basic information on the overall microfinance market in PDBF's areas of operation under study.

The report is structured as follows: we begin by presenting PDBF in Section II. We then, in Section III, go on to discuss the methodology in terms of detailing the sample frame and the areas where the survey was undertaken, describing the questionnaire admininistered to the households, and the limitations of the data. The poverty assessment of PDBF client relative to non-clients is then carried out in Section IV. The next section (Section V) compares the surveyed locations' poverty status to district level and national level poverty measures. The additional study on MFI participation dynamics is then presented in Section VI. The last section concludes.

II. PDBF

PDBF was created by an Act of Parliament of the Government of Bangladesh. In Bengali, Palli Daridro Bimochon Foundation means 'Foundation for the Elimination of Rural Poverty'. The aim of this institution is to deliver cost-effective microfinance services to poor rural clients (the *bitaheen*). It is governed by a Board of Governors, which includes representatives from the Government, the private sector and the clients themselves.

PDBF was created within CIDA's Rural Bitaheen Institution (RBI) project previously know as RD-12. The latter, a government program created in 1988, was transformed into an autonomous institution in 2000. It is committed to promoting the economic and social advancement of the poor and the disadvantaged. The targeting indicator used by PDBF is a dual one: households should not earn more than 30,000 taka per year, and they should not own more than 50 decimals of land (this includes cultivable and homestead land). Unlike many other Bangladeshi MFIs, it does not specifically target women and, under RD-12, 'only' 80% of its clients were female. However, as PDBF, the focus is now being put on women.

The structure of PDBF is as follows: there are ten regional offices with under each, between 12 to 18 branches. There is one PDBF branch per upazilla and on average 2500 clients per branch. Under RD-12, PDBF covered 149 upazillas[1]. Under PDBF, the programme has widened to include a further nine new upazillas. A field organiser typically covers 300 clients. The clients are organised into societies, which contain 30 to 40 members grouped into small groups of five. In total, PDBF has 500,000 clients.

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[1] There are 460 upazillas in Bangladesh.

As all MFIs, PDBF pursues two objectives: sustainability of services and outreach to the poor. Field workers are under pressure to fulfil the sustainability goal and it is important for PDBF to find out if their other goal is being put at stake. Their interest rate is the lowest among Bangladesh's MFIs (24% effective last year[2]).

In order to check the outreach of the MFI in question, the CGAP/IFPRI methodology proposes to divide the population into terciles according to their poverty index. Initially, the non-client sample is sorted in ascending order according to the poverty scores. It is then divided into equally sized groups (300 households since the non-client sample is of 901). The bottom third households are the poorest, the middle group is the less poor, and the top group is the richest. The cutoff scores for each tercile define the limits of each poverty group. Client households are then categorised into the three groups based on their poverty scores using these cutoff points. By construction, each poverty groups contains 33% of the total non-client sample. The distribution for PDBF clients is as follows: 29.2% in the lowest group, 36.4% in the middle group and 34.4% in highest group. These results show that clients are under-represented in the lowest tercile and slightly over represented in the higher tercile, which would indicate a less extensive outreach to the poorest households of the branch and a higher outreach to the richer households.

III Methodology

The survey was conducted in April 2003 by Nagorik Uddyog, a Bangladeshi Organisation with an extensive experience of carrying out survey and qualitative fieldwork in rural areas of the country. 1500 households from eight PDBF branch areas were interviewed: 599 clients of PDBF, and 901 non-clients. The ratio of 2 clients to 3 non-clients is intended to allow for greater variation in the non-client sample, which is used as the base to compare relative poverty of the clients.

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[2] This compares to 30% for BRAC, for instance.

III.1. Sample frame

The sampling method of the poverty assessment tool requires that only new clients entering the micro-credit programme be included in the survey. This is to ensure that client households that are studied have not yet been impacted by their participation in the MFI, which would bias the results of assessing poverty outreach of the program.

Because of the extent of PDBF's coverage, a random sampling was decided against. We discussed the sampling frame with PDBF and they expressed their interest of capturing the overall microfinance density within the sampling frame. Eight PDBF branches were identified by PDBF senior managers, which represented the various density of the microfinance coverage in Bangladesh. Four of these branches were operating in relatively less densely microfinance-covered areas and the other four were operating in relatively high microfinance density regions of the country. The relative density assessment was based on perceptions of the PDBF senior managers. A total sample of 500 was deemed to be too small to capture these variations and upon discussions with CIDA, the sample size was increased to cover 1,500 households.

We first used the latest branch wise records kept in the PDBF Head Office to make a list of new clients defined as those who joined PDBF on or later than November 2002 for the sampled branches. From this list, we randomly selected 75 new PDBF clients from each branch giving a total of 599 PDBF clients. For the non-client sample, we used the client: non-client ratio of 1:1.5 with the village as a unit. So, for instance, if there were five sampled PDBF members from a village, we randomly selected seven to eight non-PDBF members from that village.

Table 1. Distribution of clients/non clients in each region

Branch	PDBF clients	Non clients	Total
Shibgonj	75	112	187
Fulbari	74	113	187
Domar	75	113	188
Syedpur	75	115	190
Avoynagor	75	111	186
Kesabpur	75	113	188
Durgapur	75	112	187
Khaliajuri	75	112	187
Total	599	901	1500

III.3. Questionnaire

The questionnaire that was administered to the sample is based on the one developed in the manual explaining the CGAP/IFPRI tool (Henry *et al*, 2000). However, in order to take into account local idiosyncrasies, amendments had to be made to adjust for them (see Annex 1). Adjustments were made in the following cases:

- The occupation of each household member was adapted to the activities that are more likely to be undertaken in rural Bangladesh and in some cases, more detail was introduced than in the model questionnaire. An example of this is the introduction of the rickshaw puller occupation, a widespread form of employment in Bangladesh, which although could be included within non-farm enterprise employment, was spelt out for finer results.

- In the questions relating to the food consumed, the following items were introduced. Rice, which is the staple food of Bangladesh, and most often accompanied by dal (lentils). Meat and fish can be considered here as the 'luxury foods' although this is a relative concept in that fish for instance, depending on the season, may be consumed by the bulk of the population. This is why a few questions were asked on seasonal fishing and gleaning by household. An additional question was added on the perception of households' own food security status, which can provide interesting insights when compared to the poverty index, an objective measure of household's welfare.

- For the dwelling related indicators, a few adjustments had to be made to adapt to the types of housing encountered in rural areas of Bangladesh. Also, in addition to the number of rooms in the dwelling, a question about the size of the biggest room was asked, as this is an important indicator of wealth in this context.

- In the questions relating to land ownership, a distinction was made between homestead and cultivable land for clarity. The amount of operated land, though not an asset, was also included in the questionnaire, as land markets can be very vibrant in some areas of Bangladesh, and the operation of land, even if not owned, can be a good indicator of levels of welfare.

- Finally, two sections on microfinance membership were added for the additional section on MFI participation dynamics.

III.4 Limitations of the data

Cross-sectional data typically carry some limitations that need to be acknowledged. To begin with, the data are recorded by household unit. The concept of 'household' is not as straightforward as it may seem: definitions vary according to socio-cultural and geographical contexts. Deaton (1997) points to the lack of uniformity of different approaches but finds that all are 'concerned with living together and eating together, and sometimes with the pooling of funds' (pp. 23). Casley and Lury (1981) review different criteria used and find that they are sometimes in conflict, and that a problem can arise from the fact that household arrangements evolve over time. There is no 'correct' definition of a household and in this study, individuals who 'eat from the same pot' belong to the same household.

Another issue here concerns the fact that most measure are expressed in *per capita* terms to deal with the fact that large families need more resources than small families to reach the same standard of living. But this does not deal with the fact that different types of individuals produce and consume in different quantities, and that there are economies of scale within a household. First, different people have different needs. These vary according to gender, age and physical activity. Whether women are pregnant or lactating also makes a difference to their nutritional requirements. Equivalence scales are designed to take this into account. A large literature proposes different equivalence scales, but little is said about how to select the appropriate one. Second, there is the issue of economies of scale within a household: the marginal cost of an additional member in a household will decline as the household size increases. A lot remains to be done in terms of empirical research on this theme (Deaton, 1997) and it rare still to find studies dealing with this issue[3], especially in the case of developing countries but precision would require dealing with this issue as it can bias results.

Another important matter is that poverty is a dynamic process and that cross-sectional data cannot reflect this. Households fall in and out of poverty from year to year.

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[3] Hanmer *et al.* (1999) note for instance that no World Bank's Poverty Assessment has explicitly addressed this problem.

III.5. Construction of the poverty index

Using the statistical package SPSS, a Principal Component Analysis (PCA) was used to construct a poverty index. Multiple indicators can be used to describe poverty, but this makes any type of comparison extremely difficult. Often, analyses of poverty are based on income or consumption indicators but these involve costly and time-consuming surveys.

The PCA method is applied to determine how information from various indicators can be most effectively combined to measure a household's relative poverty status. The PC method enables us to summarise a set of indicators relating to poverty into a single index by weighing different components meaningfully. It isolates and measures the poverty component embedded in the various poverty correlates, the outcome being a poverty score that is assigned to each household. Which combinations of indicators prove the most instrumental in measuring relative poverty will vary according to the area under study. For example, in countries where poverty is extreme, indicators signalling chronic hunger tend to differentiate the relative poverty of households. In densely populated areas, ownership of land and dwellings may better signal differences in relative poverty.

The PCA requires the components to be introduced in the index to have a certain form: only indicators that can be reported in an ordinal and ratio scale can be incorporated in the index. This excludes certain factors that could be important such as the gender of the household head, a very pertinent correlate of poverty in the context of Bangladesh.

The first step of this methodology is to select a range of variables that are thought to be good indicators of a household's welfare. These then need to be filtered systematically to ensure they are meaningful enough to be introduced as potential elements of the poverty index. This is done by calculating the correlation between each variable and a benchmark poverty indicator: per capita expenditure on clothing and footwear. The latter was chosen to be a satisfactory correlate of overall expenditure or income in the CGAP/IFPRI methodology, and conveniently involves a single question to be introduced in the interviews. Table 2 shows all the indicators constructed from the survey that are significantly correlated (at a 1% level) with the expenditure on clothes and shoes per capita. For greater clarity, the indicators have been grouped by themes.

Once the variables that are correlated with the benchmark indicator have been identified, the PCA proper can be undertaken. Note that after this first filtering of variables, the benchmark

indicator becomes an indicator like all the others, to be introduced in the analysis i.e. in the poverty index that is to be constructed. It is recommended that no more than 20 variables be used to create the poverty index to reduce the complexity of the resulting calculated components, which means that a further screening of the indicators present in Table 2 needs to be undertaken. An intuitive way to go about this is to limit the number of variables, which are measuring the same phenomenon. This helps to balance composition of the poverty index and thus avoid overemphasizing certain aspects of poverty.

Table 2. Statistically significant correlations (at a 1% level) between various indicators and per capita expenditure on clothing and shoes

	indicator	value and sign of correlation
education	proportion of adult who completed class 12	0.17
	proportion of adult who attended school beyond class 12	0.19
	proportion of adult who never attended school	-0.31
	proportion of adults who can read and write in hh	0.24
assets	value of animals per person	0.11
	value of appliances and electronics per person	0.40
	cultivable land owned per person	0.32
	homestead land per person	0.14
	homestead land owned per person	0.18
	value of assets per person	0.38
	operated land per person	0.29
	value of animals per person	0.21
dwelling	number of rooms per person	0.28
	size of the biggest room per person	0.22
	quality of the latrines	0.34
	quality of the walls of the house	0.31
	quality of the floor of the house	0.34
	condition of the main house	0.17
	quality of electricity supply	0.41
food security	number of days for which the hh has stock of dal	0.40
	number of days for which the hh has stock of rice	0.21
	in last 7 days, number of days where hh did not have enough to eat	-0.21
	in last year, number of days where hh did not have enough to eat	-0.25
	use of 100 taka extra	0.19
	number of freshly cooked meals served in the last 2 days	0.14
types of food	frequency with which fish is bought	0.31
	frequency with which meat is bought	0.25
	frequency with which rice is bought	-0.24
demographics	dependency ratio of children over adults	-0.23
employment	dependency ratio of unemployed over employed in hh	0.19
	proportion of adults in hh who do not work	0.20
	proportion of adults in hh with agricultural main occupation	-0.08

Once this selection has been made, a first attempt model is tested. In the process of selecting the indicators that will yield a good poverty index, only non-client households' information is used, as it is the representative control group. Obtaining a poverty index that performs well is an iterative process whereby the initial index is refined mainly by excluding variables that do not improve its explanatory power. The final result is an index composed of 21 variables (Table 3) covering the themes of education, assets, quality of the dwelling, food security, types of food consumed, and demographics (as well as the benchmark indicator).

Table 3. Variables included in the final principal components model

	Indicator	Component 1
education	proportion of adults who can read and write in hh	0.57
	proportion of adult who completed class 12	0.45
	proportion of adult who attended school beyond class 12	0.36
	proportion of adult who never attended school	-0.64
assets	value of assets per person	0.53
	value of appliances and electronics per person	0.58
	value of animals per person	0.33
	homestead land owned per person	0.35
	cultivable land owned per person	0.54
dwelling	quality of the walls of the house	0.50
	quality of the latrines	0.60
	quality of electricity supply	0.64
	condition of the main house	0.43
food security	use of 100 taka extra	0.41
	number of freshly cooked meals served in the last 2 days	0.37
	number of days for which the hh has stock of rice	0.52
	in last year, number of days where hh did not have enough to eat	-0.53
types of food	frequency with which meat is bought	0.47
	frequency with which fish is bought	0.42
demographics	dependency ratio of children over adults	-0.48
Bench mark Indicator: Expenditure on clothing and shoes per person		0.70

IV. Results of the poverty assessment

IV.1. Characteristics of the sample

The sample under study consists of 1500 households with a total of 7009 individuals. Table 4 presents a few indicators, which characterise the sample. This is presented by client status so that some initial understanding of the differences is gained. In order to carry out within country comparison, it would have been helpful if national averages for the variables were included. However, we could obtain national rural averages for only a few of these variables. As variables are extremely sensitive to the way they are defined and set up, comparison across studies becomes difficult. Even when variables match in their construction and definition, there can be additional problems of comparability across time.

Household demographics
The average household size is significantly higher for the non-clients. These two figures in turn are smaller than the average household size reported by WHO for Bangladesh as a whole: 5.2[4]. The biggest household for clients contains 13 members while for non-members this number is 16. The percentage of female-headed households is not significantly different between the two groups (8% and 9% respectively for members and non members). This compares to national level for which, WHO reports a figure of 9.3% and 9.2% for rural areas.

Food security
Differences do appear when it comes to indicators of food security and in that respect, PDBF clients are better off. 84% of PDBF households report 'not going hungry in the last week' against 77% for non-clients. When asked the same about the last year, this number is 65% and 57% for clients and non-clients respectively. There seem to be seasonal food security issues for both groups but PDBF clients remain in a better position.

Access to water and sanitation and electricity
There exist differences among regions in terms of access to latrines. In Syedpur for instance, almost 50% of households use open space as a toilet, compared to a much lower 3% in Avoynagor. But when looking at the differences in this respect between clients and non-clients, differences are minor. 99.5% of the overall sample has access to tubewell and shallow tubewell

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[4] This number is for 1996/97 and applies to Bangladesh as a whole as well as for rural areas specifically. Unfortunately, there are no more recent nationally representative data than these.

water hence no inter-branch differences. Access to electricity is also relatively even across the studied branches: overall, 62% of households do not have a connection to electricity and 9% share a connection. The results pertaining to access to water and electricity show that although the areas surveyed are geographically far apart, they are not very different in terms of access to there essential factors.

Expenditure on clothing and shoes

In terms of the variables dealing with the benchmark indicator and the value of household's assets, there are no significant differences between the two groups. The average expenditure on shoes and clothing per person is almost 850 Taka a year. The variation across households is wide: on the one hand, among clients of PDBF, the maximum spent on a person for clothing and shoes was 9000 Taka and among non-clients, 6000 Taka. On the other hand, 0.7% and 1.4% of PDBF members and non-clients, respectively did not spend any money on these items.

Household assets

The variation is also substantial with regards to the value of assets per person. Among PDBF clients, the maximum recorded number is 34,200 Taka a month and a substantially higher 119,130 Taka among non-clients. In the latter groups, the household reporting such a number is not just an outlier. The next highest recorded number is 73,800 Taka and the next in descending order are still far off the maximum recorded for PDBF households. This shows that the non-client households surveyed capture the variations that exist in the overall population, which is what was intended.

Ownership of land, as we mentioned earlier, is one of the targeting indicators used by this MFI. PDBF members fare worse with significantly less land owned: 75 decimals compared to 108 for the rest of the sample. 71% of the clients own less than 50 decimals of land, which is the threshold, used by PDBF to select its members.

After reviewing some aspects of the sample and concentrating on differences that exist between PDBF clients and the rest of the control sample, the poverty index results are presented. As explained earlier, this index is a measure of welfare, which encompasses various aspects of poverty. By synthesising all these dimensions into one composite number, the analysis is made simpler.

Table 4. Sample characteristics by client status

	PDBF clients	Non clients	
average hh size	4.5	4.8	**
female headed hh	8%	9%	
average per person expenditure on clothes and shoes	844	847	
average per person value of assets	2,771	2,864	
households with no assets	2%	4%	**
average number of days in the past week where the hh did not have enough to eat	0.3	0.6	***
hh who did not hungry in the last week	84%	77%	***
hh who did not hungry in the last year	65%	57%	***
average size of land owned by hh (homestead and cultivable)	75	108	***
households with less than 50 decimals of land	71%	65%	**

Stars indicate statistically significant differences: *** at a 1% level, ** at a 5% level, *at a 10% level.

IV.2 The poverty index

Once the final model for the PC index has been chosen, scores are assigned to each household based on which they can be ranked. The lower the score, the worse off the household. The scores derived in this analysis are very dispersed[5], ranging from –2.3 to 6.7 (Figure 1). But this dispersion is much greater among non-client households with a maximum of 6.7 compared to 3.7 for PDBF clients. This is expected as the non-client sample is drawn to represent the general population in the community.

Figure 2 plots the cumulative frequency distribution for clients and non-clients. It suggests that at the lower scale of the welfare indicator, PDBF clients fare better than non-clients. Around the middle of the distribution, this tends to reverse. Indeed, the curve relating to clients is consistently below that of non-clients up to 50% of the cumulative population distribution and vice versa after that. This means that for a given percentage of the population, the average score of clients is higher initially and then becomes lower than that of the non-client group.

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[5] As a benchmark, note that in the study using this method for a South African MFI, the scores ranged from –2.0 to 3.1.
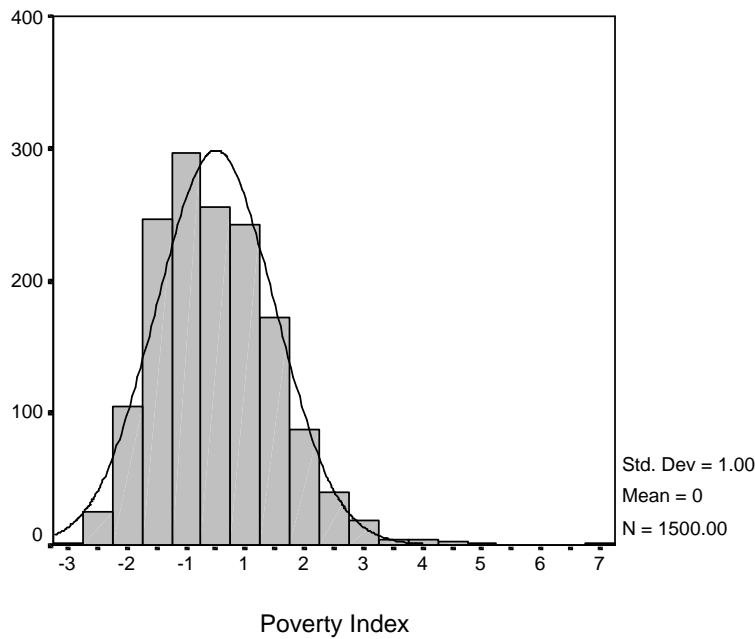
Figure 1. Histogram of the poverty index

Figure 2. Cumulative distribution for poverty index by client status
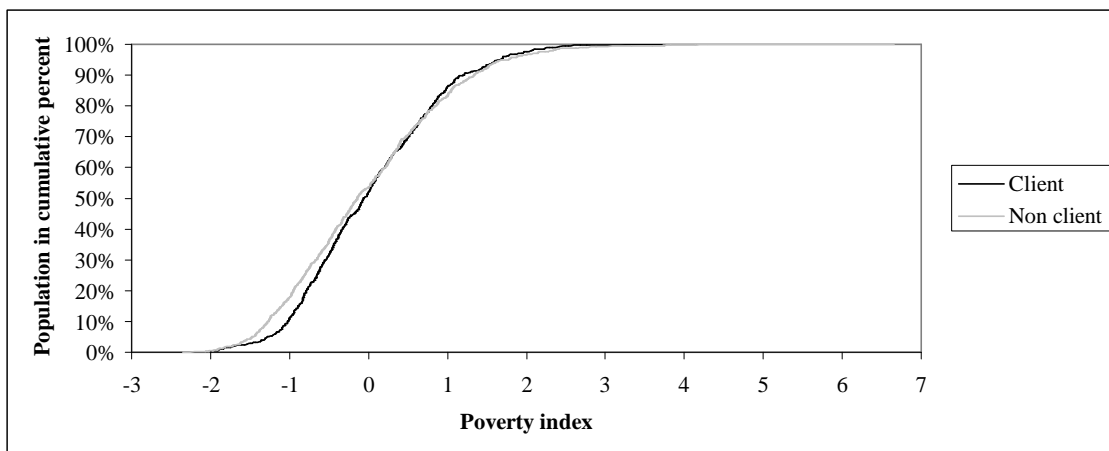

Figure 3 represents the poverty scores in the form of box plots. The horizontal black line dividing the boxes represents the median. The grey boxes symbolize the inter-quartile range, which contains 50% of the values, excluding outliers. The lines extending from the box show the highest and lowest values in the particular sample, again excluding outliers. The client and non-client samples are very similar, the only difference being the existence a many more outliers among the non-client group which is expected given that they are randomly chosen households. This similarity between the two categories of households is confirmed by a statistically non significant difference in the mean poverty index (0.03 for clients and –0.02 for non-clients).

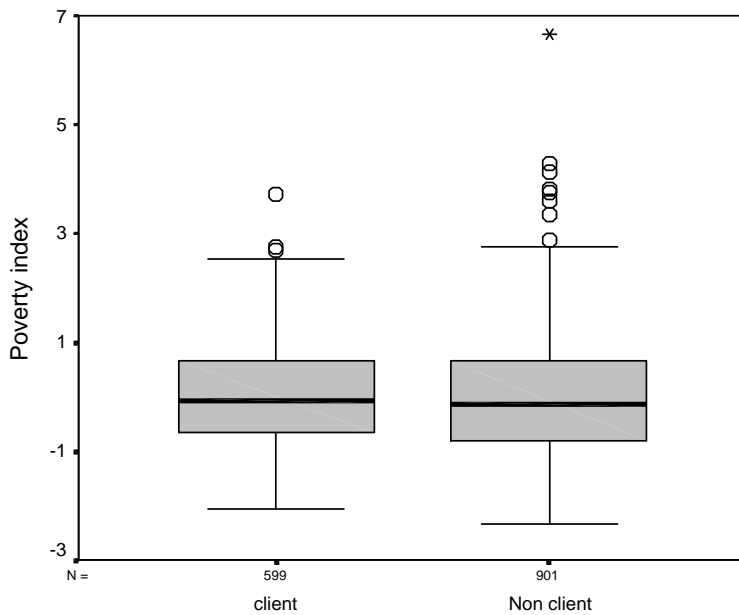**Figure 3. Box-plotting of the poverty scores by client status**

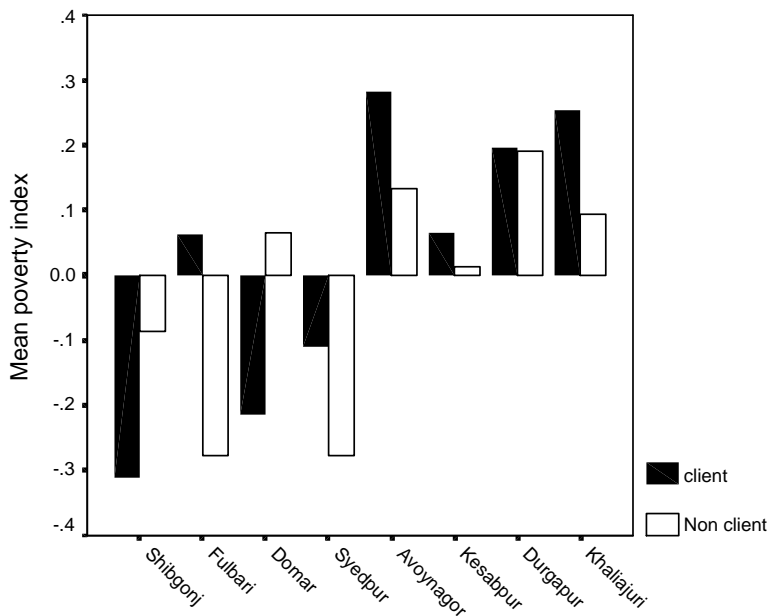**Figure 4. Average relative poverty scores disaggregated by survey area and client status**

Figure 4 illustrates the average scores by client/non-client for each area. Only in Fulbari and Domar is the difference between the client and non-client score found to be statistically significant. In the first case, clients are on average better off than non-clients and vice versa in

the second case. Annex 2 is a box plot representation of the scores, as above, but distinguishes between the eight branches.

IV.3. Poverty groups

In order to check the outreach of the MFI in question, the CGAP/IFPRI methodology proposes to divide the population into terciles according to their poverty index. Initially, the non-client sample is sorted in ascending order according to the poverty scores. It is then divided into equally sized groups (300 households since the non-client sample is of 901). The bottom third households are the poorest, the middle group is the less poor, and the top group is the richest. The cutoff scores for each tercile define the limits of each poverty group. Client households are then categorised into the three groups based on their poverty scores using these cutoff points. The outcome of this exercise is shown in Figure 5 by construction, each poverty groups contains 33% of the total non-client sample. The distribution for PDBF clients is as follows: 29.2% in the lowest group, 36.4% in the middle group and 34.4% in highest group. These results show that clients are under-represented in the lowest tercile and slightly over represented in the higher tercile, which would indicate a less extensive outreach to the poorest households of the branch and a higher outreach to the richer households.

Figure 5. Percent breakdown by poverty tercile, MFI clients and non-clients
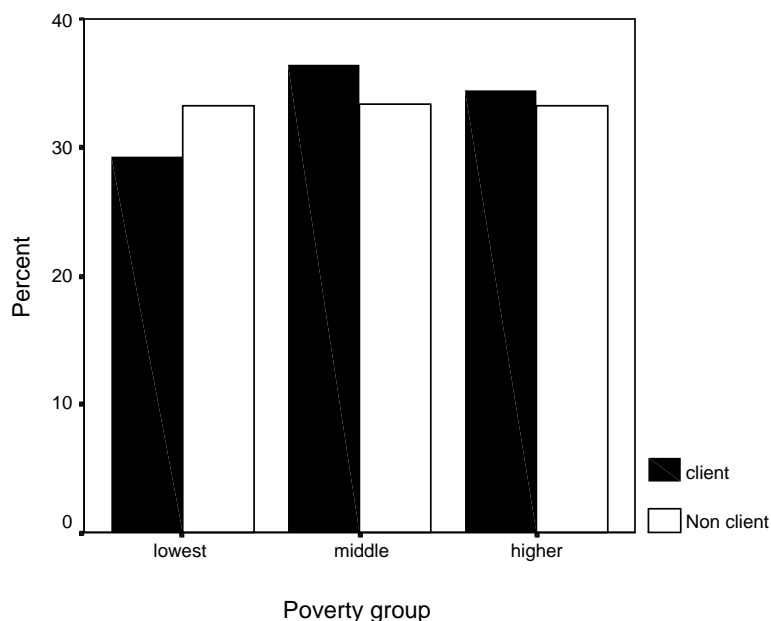
IV.4. Discussion

When we compare the differences in the variables that have been used to construct the poverty index across the poverty groups, we observe expected patterns and differences, which is reassuring in terms of the robustness of the results of the analysis. Graphical displays are shown for all the variables in Annex 3. A few remarks can be made based on these figures.

With regards to education, most significant differences between clients and non-clients occur for the middle and upper terciles. The only significant differences that exists for the poorest section of the population, and 'only' at a 10% level is for the proportion of adults in the households who have not had any schooling which is higher for PDBF clients.

In terms of assets ownership, it is interesting to find that the significant differences that arise do so for the poorest tercile. The variables concerned are the total value of assets per person, owned homestead and cultivable land per person. It should be noted that it is the PDBF clients who are better endowed with regard to these indicators.

The variable indicating what the household would do if its monthly income were suddenly boosted by 100 taka[6] is worth observing for the substantial difference between clients and non-clients in the poorest tercile. This can be interpreted as meaning that PDBF households are less prone to food insecurity and it is indeed confirmed by other indicator of this category. The consumption of meat, a luxury food, is also significantly higher in the lower tercile for PDBF households.

An additional indicator that enables us to test how good the poverty index is, is the food security self-assessment, which has been recognised in various studies to be a good correlate of poverty. Figure 6 also shows a good correspondence between the indicator constructed using the PC method and the poverty self-assessment.

The poverty index constructed with the CGAP/IFPRI methodology shows that PDBF does not reach the poorest households. Two reasons can explain this problem: either PDBF is not

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[6] The responses to these are 1 if it is only on food, 2 if it is on food and savings, and 3 if it is on savings only. It is assumed that spending this money on food is a sign that the house is worse off.

managing to direct its services to its target group properly, or the target it has chosen does not in fact select the poorest section of the population. This is what is investigated next.

Earlier, it was established that 71% of PDBFs clients own less than 50 decimals of land, which is one of the two targeting indicators, used by this MFI. This means that 29% of them own more than that. In fact, when focusing exclusively on PDBF member households that possess more than this threshold of land, it is found that some households own substantially bigger amounts of land[7]. At the same time, 65% of the non-client sample owns less than 50 decimals of land, which means there is scope for field staff to find other potential clients corresponding to the target criteria[8].

Figure 6. Relationship between food security self assessment and the PC poverty index
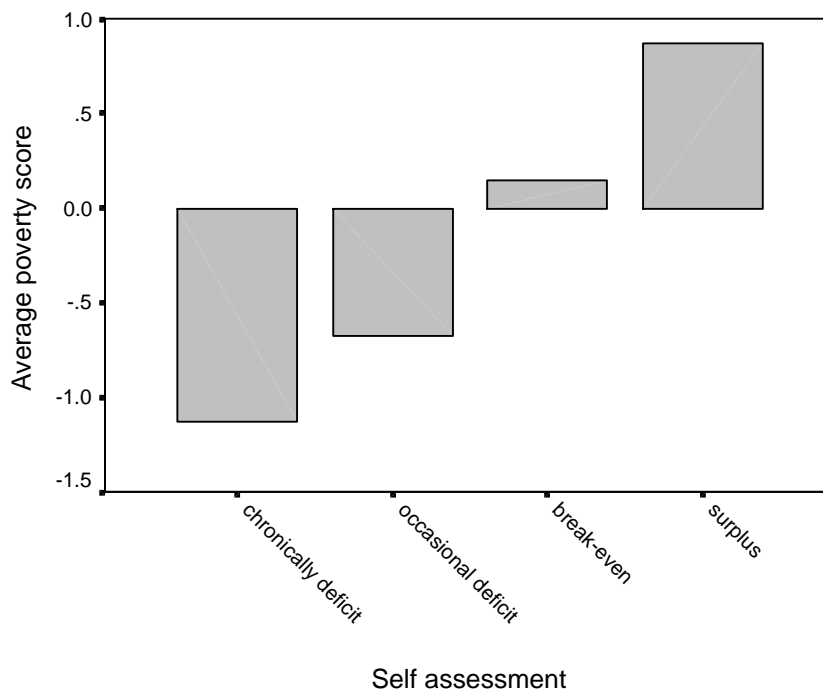
The land based targeting indicator itself may be inadequate to be a pro-poor screen. We note that the PDBF client group includes a significantly higher percentage of households owning less than 50 decimals of land compared to the non-client group. To the extent that land based criteria is

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[7] Indeed, it is not just the case of one or two outliers. Two households own more than a thousand decimals of land and 13 more than 500 decimals of land.
[8] PDBF bases its choice of clients on two criteria. The other one is income on which there is no information in this survey. It can be assumed that among those 65% of the non-client population who do not own 50 decimals of land, some will also match the income criterion. However, not all of these non-PDBF served, may not be non-microfinance served. This issue is discussed later.

used extensively by programmes in rural Bangladesh as a pro poor screen, one may conclude that PDBF is pro poor in its targeting. Yet, when we examine the poverty score distribution, we note that PDBF's client groups consist of almost proportionate representation of the general cross-section of the community in which PDBF operates. In that sense, PDBF's land base targeting screen fails to be adequately pro poor in discriminating between the various poverty groups.

V. International and national comparison

V.1. Comparison with other countries

The main source of data for the quantitative research on poverty in Bangladesh is the series of Household Expenditure Surveys (HES) conducted by the Bangladesh Bureau of Statistics (BBS) at relatively regular intervals[9]. This is a nationally representative survey. The World Development Indicators Database reports a national poverty head-count index of 33.7% in 2000[10]. Another source, Sen (2003), estimates the poverty index to be 39.8% in 2000 from his own estimation. This is higher than its neighbouring countries: 28.6% in India and 32.6% in Pakistan. International poverty lines such as the one dollar a day or two dollars a day (using 1993 international prices) are also useful to compare standards of living across countries. It shows the percentage of people who cannot purchase a similar basket of commodities. We report these numbers in Table 5. Figures for other low-income are countries are provided, as well as those for South Africa and Bolivia, two middle-income countries, on which the IFPRI/CGAP tool has also been applied. According to these indicators, Bangladesh is relatively better off than the other countries shown, but the proportions of people below these income thresholds are still quite substantial. It should be noted that international poverty lines are often deemed to underestimate poverty and to have inherent weaknesses linked to the conversion rates used to convert currencies into dollars[11].

It should be borne in mind that national figures conceal a wide gap between rural and urban areas whose head-count index Sen estimates at 43.6% and 26.4% respectively[12]. The poverty lines he uses are, 634 taka per person per month for rural areas and 725 taka per person per month.

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[9] The last survey took place in 1999/00, which prevents us from presenting more up-to-date estimates.
[10] This is based on a national poverty line and estimated by World Bank staff.
[11] See Pogge and Reddy (2002) for a strong critique of the 'one dollar a day' international poverty line.
[12] It should be noted that the two other poverty indicators from the Foster-Greer-Thorbecke kind, namely the poverty gap and the severity index, point to a similar differential between rural and urban areas.

From this number, it is clear that rural poverty in Bangladesh is higher than urban poverty and this should be taken into consideration in the context of this study, which takes place exclusively in rural areas.

Because poverty is multi-dimensional but also because income measures come with their drawbacks, we look at other indicators of poverty to gauge Bangladesh's position with regards to the rest of the world. The Human Development Indicator (HDI) is an index composed of weights indicators of longevity (approximated by life expectancy), knowledge (approximated by the literacy rate), and living standards (approximated by the logarithm of real GDP per capita based on purchasing power parities). It measures the outcomes of development. In 2000, Bangladesh's HDI was 0.478 which means it ranked 145th among 173 (UNDP, 2002) confirming its high levels of human poverty compared to the rest of the world. In general, an index below 0.5 translates a low level of development. Note that the countries whose HDI ranks below that of Bangladesh are African countries, which shows that Bangladesh fares quite badly among its Asian neighbours. Table 5 provides a few other social indicators. Life expectancy is lower in Bangladesh than in its neighbouring countries. The fact that it is higher than the two African countries, and notably South Africa, a middle-income country, is merely due to the considerable impact of AIDS on the mortality. Adult literacy and gross enrolment ratio are lowest in Bangladesh compared to all the countries given as an example. In terms of the number of physicians available for the population, Bangladesh fares particularly badly compared to its neighbouring countries with only 20 physicians available for 100,000 individuals (compared to 48 and 57 in India and Pakistan respectively).

Table 5. Comparison of poverty and social indicators across selected countries

	Bangladesh	India	Pakistan	Nigeria	Bolivia	South Africa
Population under the US$1/day poverty line (1993 PPP US$)	29%	44%	31%	70%	14%	12%
Population under the US$2/day poverty line (1993 PPP US$)	78%	86%	85%	91%	34%	36%
Human Development Indicator	0.478	0.577	0.499	0.462	0.514	0.695
Life expectancy	59 years	63 years	60 years	52 years	62 years	52 years
Adult literacy	41%	57%	43%	64%	86%	85%
Gross enrolment ratio (primary / secondary / tertiary education)	37%	55%	40%	45%	70%	93%
Number of physicians per 100,000 individuals	20	48	57	19	130	56

Source: UNDP (2002)

V.2. Regional variation[13]

Bangladesh is usually referred to as a homogeneous country because of factors such as a unique official language or a relatively uniform ethnic composition. This however, does not prevent it from presenting strong variations across the country in terms of poverty. Thus, we go on to present indicators of poverty obtained from different sources at the district level. Table 6 shows the districts corresponding to the branches selected in this study

### Table 6. Branches and their corresponding districts

branch	district	branch	district
Shibgonj	Bogra	Avoynagor	Jessore
Fulbari	Dinajpur	Kesabpur	Jessore
Domar	Nilphamari	Durgapur	Netrokona
Syedpur	Nilphamari	Khaliajuri	Netrokona

To find poverty related indicators disaggregated at the district level, various sources are used. BIDS/UNDP (2001) map regional income poverty and find Bogra, Dinajpur and Jessore to have a poverty head-count index varying from 40.1% to 45%, Netrokona between 45.1% and 50% and Nilphamari more than 50.1%. In terms of human poverty, the same source maps a human poverty index. The latter consists of aggregate shortfalls in the following dimensions: deprivation in overall economic provisioning, deprivation in knowledge, and deprivation in health (BIDS/UNDP, 2001). From this, it is found that all districts of this study to have a value comprised between 40.1% and 45% except Nilphamari whose index is in the 45.1% and 50% range.

Conte et *al* (2000) map the incidence of extreme chronic food insecurity (Figure 7) which they obtain using a principal component method in order to identify regional clusters of food insecurity in Bangladesh to enable a better targeting of food aid by the World Food Programme (WFP). In Figure 8, poverty severity, which is calculated based on a simple poverty line of 2122 kilocalories, is mapped. We superimpose the districts where the branches under study are located.

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[13] Unfortunately, studies providing geographically disaggregated figures are based on the 1995/96 Household Expenditure Survey conducted by the Bangladesh Bureau of Statistics. The programme for Research on Chronic Poverty in Bangladesh (BIDS) is currently undertaking a poverty mapping exercise on the basis of the 2000 Household Income and Expenditure Survey (HIES) of BBS but the results are not available yet.

Figure 7.Incidence of extreme chronic food insecurity
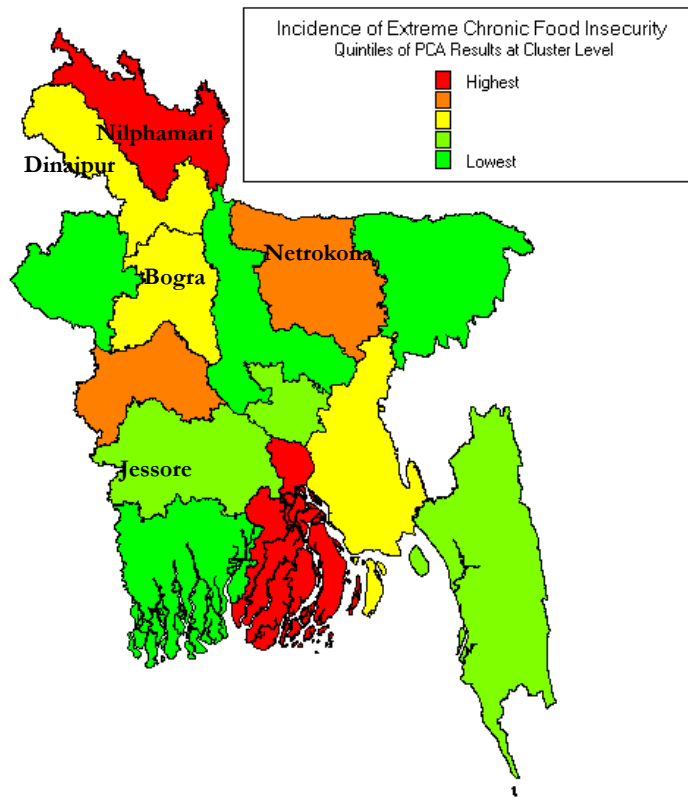
Source: Adapted from Conte *et al* (2000)

Figure 8. Poverty severity
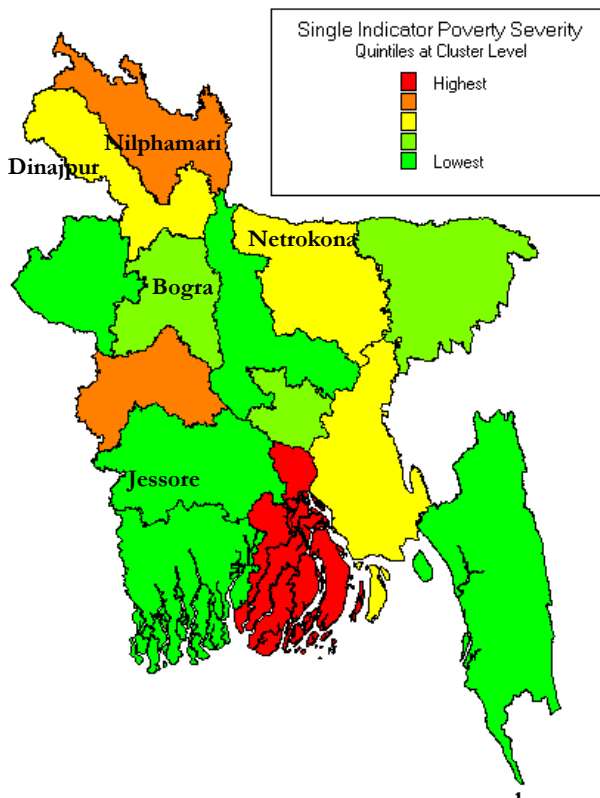
Source: Adapted from Conte *et al* (2000)

The outcomes of these different studies are synthesised in Table 7. In the BIDS/UNDP study, Bangladesh's districts are divided into 6 groups according to their head-count index: up to 30%, between 30.1 and 35%, between 35.1% and 40%, between 40.1% and 45%, between 45.1% and 50%, and more than 50%. The same categories are used to classify regions according to the human poverty index. In the Corte *et al* study, the incidence of extreme chronic food insecurity and the poverty severity of Bangladesh's districts are categorised from lowest to highest into five categories. Thus, this table allows us to assess how the areas covered by our survey where PDBF operates compare to the whole of the country in terms of poverty. Jessore is unanimously ranked as the better-off district (among the ones of the study) but the BIDS/UNDP results present it as a middle range district in terms of national poverty. Corte *et al* find it to be among the better-off districts of Bangladesh. The two branches of our study located in Jessore, Avoynagor and Kesabpur, respectively rank first and fourth in terms of the PC index. Netrokona, Bogra and Dinajpur districts are overall slightly worse off than Jessore. Looking at the Netrokona PDBF branches, we find however that they rank among the better off of the entire sample. Finally, Nilphamari comes across as one of the poorest districts of Bangladesh which tallies with the PC ranking of the branches under study.

Table 7. Ranking of districts corresponding to the branches of this study according to different poverty studies (from richer to poorer)

branch	district	ranking according to PC index	ranking by head-count index (BIDS and UNDP)	ranking by human poverty index (BIDS and UNDP)	ranking by Incidence of extreme chronic food insecurity (Conte *et al*)	ranking by poverty severity (Conte *et al*)
Shibgonj	Bogra	7	3	4	3	2
Fulbari	Dinajpur	6	3	4	3	3
Domar	Nilphamari	5	5	5	5	4
Syedpur	Nilphamari	8				
Avoynagor	Jessore	1	3	3	2	1
Kesabpur	Jessore	4				
Durgapur	Netrokona	2	4	4	4	3
Khaliajuri	Netrokona	3				

Notes: For the BIDS/UNDP ranking, the categories for the whole of Bangladesh range from 1 to 6 from richest to poorer. For the Corte *et al* study, the categories range from 1 to 5 from richest to poorer.

A few concluding remarks can be made based on the observations made in this section. Firstly, there is no doubt that poverty is extensive in Bangladesh. This is true of different aspects of poverty. So although there seems to be a slight under representation of the poor compared to

the overall population in the PDBF clientele under study, it is likely that even client households falling in the middle poverty group will be poorer than households of other countries programs (for instance households of Small Enterprise Foundation (SEF) in South Africa. In other words, PDBF may not be dealing with the poorest of the poor in the areas under study, but it is certainly dealing with very poor people compared to international standards of living.

At a more disaggregated level, we found that, generally speaking, the poverty level of the branches under study corresponds to the poverty level of the districts they belong to (except Netrokona). Because of its widespread presence across the country, PDBF deals with areas of varying degrees of poverty. Domar and Syedpur for instance are located in one of the poorest districts of Bangladesh, Nilphamari. In these branches, while the poorest may be under-represented, the majority of the population fare badly.

VI. MFI Participation Dynamics

MFI participation is undergoing important changes in Bangladesh (Zohir *et al.*, 2001). Gone are the days when households' MFI participation could be neatly mapped to a particular microfinance institution-- multiple MFI membership is increasingly becoming an important reality. MFI hopping is also becoming an emerging trend, as clients are switching from one provider to another. What drives the complex and fluid MFI participation behaviour of households is the massive growth of the microfinance industry in Bangladesh; especially during the latter half of the 90s with the emergence of Palli Karma Sahayak Foundation (PKSF), the microfinance wholesaler. Given this reality, we included a module in the questionnaire on the theme of MFI participation of household members. The idea was to provide some basic information on the overall microfinance market to PDBF in their areas of operations.

Conceptually, we can categorize households based on their MFI participation according to the following diagram. The size of these groups based on our survey data is given in percentages within brackets.

VI.1 Multiple MFI Participation:

Multiple MFI participation has been shown in the literature to be associated with higher probability of default though the causality is not very clear (Chowdhury and Matin, 2001; Matin, 1998; Zohir, 2001). Multiple MFI membership can also be an opportunity driven strategy as all individual institutions have their own loan ceiling, which may be less than what the client can usefully invest. Regardless of the reasons behind multiple MFI membership, it is important for a microfinance institution to have a good idea about the incidence of multiple MFI membership of its members.

Figure 9. Categorisation of households according to their MFI participation
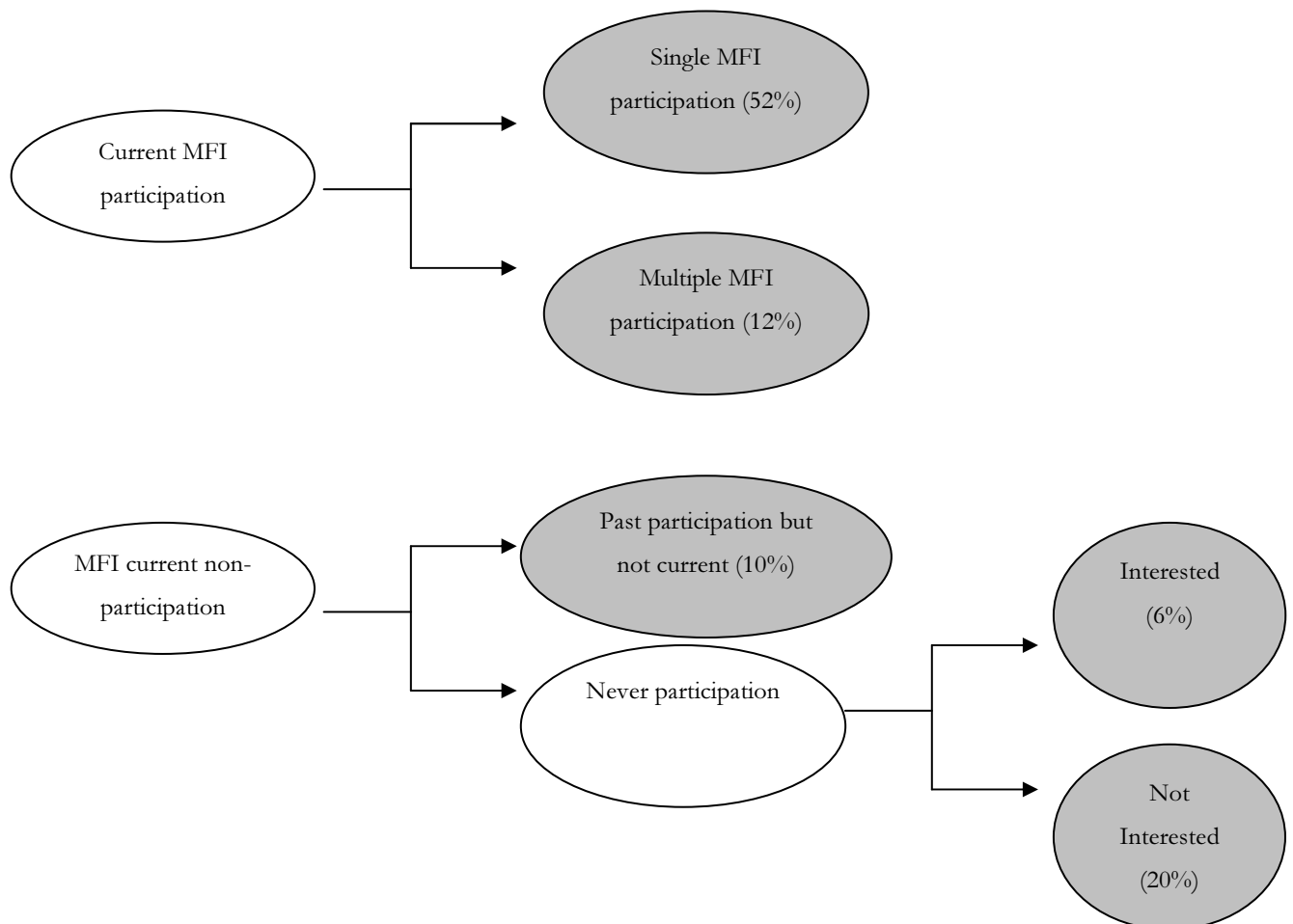
Table 8 provides a branch wise distribution of some key information pertaining to household level current MFI participation. Two observations can be made:

- A large percentage (41%) of non-PDBF households are current participants of various other MFIs operating in the PDBF branch areas. This is highest in Fulbari (57%) and lowest in Khaliajuri (39%).

- Though on the whole, the extent of multiple MFI participation of PDBF households (17%) is somewhat lower than that of non PDBF MFI participating households (20%), there are significant branch wise variations[14]. In Syedpur PDBF branch area, for instance, the degree of multiple MFI membership of PDBF households (16%) is more than two times higher than it is for non-PDBF MFI participating households (7%) residing in the same area. The PDBF branch areas where this is true are shaded in the Table above.

Multiple MFI membership can be defined at the level of the individual member or at the level of the member household. As loan use and repayment decisions in rural Bangladesh tend to be made at the household level, multiple MFI membership should also be estimated at the household rather than individual member level. If we only consider multiple MFI membership of PDBF members (and not of other members of the PDBF households), we get a figure of 11%. However, if we extend our definition of multiple MFI membership to include other members of the PDBF households, we get a figure of 17%. Thus a failure to take into account multiple MFI membership at the household level can lead to an underestimation of the phenomenon.

Table 8. Branch wise Distribution of Current MFI Participation

branch	% of PDBF hhs reporting multiple MFI participation	% of non PDBF microfinance HHs having multiple MFI participation
Shibgonj	7%	22%
Fulbari	18%	25%
Domar	8%	15%
Syedpur	16%	7%
Avoynagor	17%	25%
Kesabpur	30%	21%
Durgapur	9%	18%
Khaliajuri	31%	25%
Total	17%	20%

[14] The national figure for the percentage of microfinance households having multiple membership is hard to get. The only study that reports on this is Zohir, et al, 2001. They find a national figure of 13%, which is lower than what we obtain here. However that figure is for 1999-2000 and the extent of multiple membership is increasing over time.

VI.2. MFI Non-Participation

The households that did not report MFI participation at the time of survey can be categorized into two types—(1) households who never had MFI participation, and (2) households that had past MFI participation but none at the time of the survey. A total of 970 households reported not having any MFI participation at the time of the survey and of these, 28% were of type 2 according to the categories above.

As a large percentage (70%) of the households who had past but no current MFI participation at the time of survey were within the less than 50 decimals land group, PDBF could explore the possibility of including such households. However, it will be important to assess the quality of such a client pool, as they could be more risky as clients.

We asked households who never had MFI participation if they were interested in participating. Only 23% of such households showed interest. Note from the Table 9 below that the households who never had MFI participation tend to be relatively better off in the community. This is probably the reason why only 23% showed any interest in joining a MFI. For those who did not, we asked the reasons. The most predominant reasons were: the hassle (not inability) of loan repayment (47%) and that they could manage without (33%).

For the households who never had MFI participation but were interested in joining one, we asked why they had not as yet. The important answers were: 'the economic situation of the household is quite poor and that is why existing members are not interested' (40%); 'cannot give the time needed to attend meetings' (16%); 'previously joining was not necessary but will have to consider now' (12%).

VI.3. Conclusion on MFI participation

If we compare the five MFI participation categories developed above in terms of some key poverty variables, we get a picture like the one shown in Table 9.

Table 9. Comparison Between Various Microfinance Participation Groups

	Current - Single	Current - Multiple	Past but not current	Never but interested	Never and not interested
% in the target group	74%	60%	71%	72%	54%
PSA	2.79	2.86	2.6	2.49	2.96
Average Poverty Score	-0.09	0.08	-0.15	-0.15	0.3

The overall pattern that emerges is that two groups tend to contain the poorer population—(1) those households who participated in the past but not currently, and (2) those households who never participated but interested in participating. Among the current participating households, those who borrowed from multiple sources tend to better off than those who were borrowing from a single MFI. This may point to the conclusion that those who have a demand for larger loan size, usually the better off, are the ones who are largely borrowing from multiple MFIs. This conclusion however needs to be further researched. As expected, those households who never borrowed from a MFI and not interested in doing so are the best off. We can map the conclusion emerging about broad MFI participation dynamics and poverty groups into a diagram.
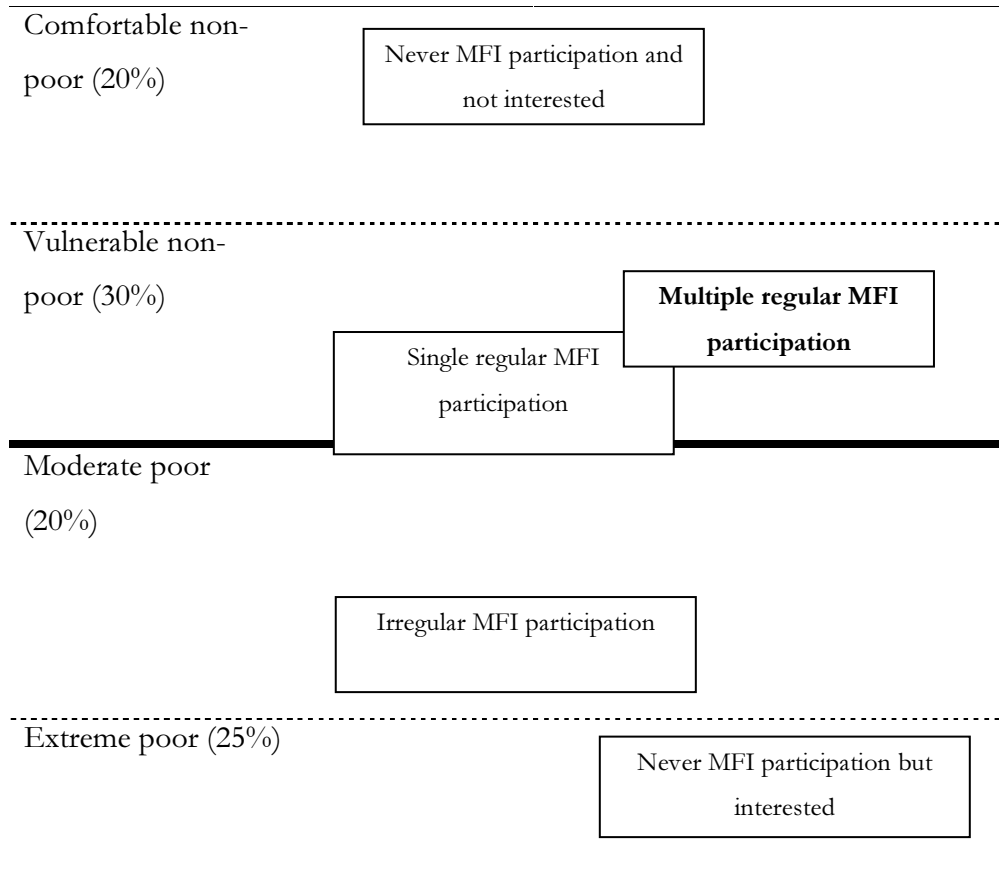
It is important for any microfinance provider to recognize that they are operating in market with several other competitors. The participation pattern of the clients is also becoming increasingly complex and fluid where long term retention of clients becomes a big challenge.

Our data suggests that in the PDBF areas where we drew our sample from, a large proportion of the non-PDBF households were already borrowing from different MFIs operating in these areas. Of those households who were not borrowing from MFIs at the time of survey, a significant percentage reported borrowing from MFIs in the past. Thus, though the percentage of non-participating households based on current participation is about 36%, the percentage of households who never participated in a MFI is only 26%. Among such households again, we find that a large section is not interested in participating in a MFI. The potential for horizontal expansion is thus very thin.

PDBF should conduct a product review of its financial services on offer and compare it with other providers in the area. This can provide valuable guidance to PDBF in terms of strategizing over its expansion and product development. Developing a simple entry and exit survey which would collect some basic information on clients would also be extremely helpful in assessing client retention status and providing early warning signs for actions. The importance of evidence

based management for operating successfully in a competitive market environment cannot be over emphasized. This is increasingly becoming true and a necessity for microfinance institutions in Bangladesh.

Figure 10. MFI Participation Dynamics and Poverty

Comfortable non-poor (20%)

Never MFI participation and not interested

Vulnerable non-poor (30%)

Multiple regular MFI participation

Single regular MFI participation

Moderate poor (20%)

Irregular MFI participation

Extreme poor (25%)

Never MFI participation but interested

VII. Conclusions

The aim of this report has been to mainly assess the relative depth of poverty outreach of PDBF. Using the CGAP/IFPRI, we find that PDBF's clients are slightly under represented in the poorest tercile of the population (when ranked by the calculated poverty scores), and the two other terciles are more or less equally represented within the PDBF clients. In terms of relative poverty outreach, thus, PDBF is targeting across the board. However, there are two caveats to this general conclusion that needs to be mentioned.

One, the poorer of the PDBF clients are somewhat better off than the poorer among the non-client group, while the better-off among the PDBF clients are poorer than the better-off among

the non-client group. This is borne out from the cumulative distribution of the poverty score between the clients and the non-clients we depict in Figure 2.

Two, the status of the population PDBF serves also needs to be judged relative to national and international levels of poverty. In relative terms, PDBF may not be dealing with the poorest, but given the standard of living of the country and of some of the branches, absolutely speaking, it is dealing with very poor people indeed.

This broad result that PDBF is targeting across the board is generally true for most microfinance institutions in Bangladesh. Targeting the very poor for microfinance is difficult both from demand and supply side. The fact that the bottom tercile is almost proportionally represented among PDBF clients is quite laudable.

We find that PDBF has a significantly higher percentage of households that satisfy its land-based criteria than the non-client group. Yet, the poverty scores analysis suggests that PDBF is targeting across the board. If the land-based screen were sufficiently complete as a pro poor screen, the results of the two would be more congruous. PDBF should explore ways to fine-tune the land-based indicator to be more complete as a pro-poor screen.

Finally, the implications of operating in a much more competitive marketplace with clients having a much wider choice, needs to be appreciated. Studies that assess the poverty outreach of programmes yield important insights. The next step should be market studies that provide better understanding of the relationships between the livelihoods constraints and opportunities of the poor and the financial services on offer so that products and services can be further improved to better suit the ever-changing needs of the clients.

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IX. Annexes

Annex 1. Survey questionnaire

Section A. Household Identification

| | Household code | | | | |

A.1 Date   :   [Day] [Month] [Year]

A.2. Branch Name:

A.3. Fieldworker Name:

A.4. Society Name:

A. 5. Group Name:

A.6. Name of Village:

A.7 Household chosen as :   (1) Client of PDBF   (2) Non Client of PDBF

A.8 Is the Household from Replacement List?   (0) No   (1) Yes

A.9. If yes, the original household was:

   (1) Not found

   (2) Unwilling to answer

   (3) Client status was wrongly classified

A.10 Respondent Identification :

  Name of the Respondent:

  Name of the Household Head:

  A.11 Interviewer Code   :   [ ][ ][ ]

  A.12 Interviewer Signature   :

  A.13 Date Checked by Supervisor: [ ][ ][ ][ ][ ]

  A.14 Supervisor Signature   :

Section B. Household Structure: Adult members residing in the household (more than 14 years of age)

B1 ID Code	B2 Name	B3 Marital status	B4 Relationship to household head	B5 Sex	B6 Age	B7 Maximum grade of schooling passed	B8 What type of school	B9 Whether can write	B10 Main occupation	B11 Clothing and footwear expenses for the last 12 months
1										
2										
3										
4										
5										
6										
7										

B3:
Married, with spouse permanently present in the household	1
Married with spouse migrant	2
Divorced	3
Separated	4
Abandoned	5
Widowed	6
Not married	7

B4:
Household head	1
Spouse	2
Son/ Daughter	3
Father/ Mother	4
Grand Child	5
Grand parents	6
Other relatives	7
Other non relative	8
Non relative	9

B7: As recorded

B8:
Madrashah	1
Govt. primary school	2
Non govt. primary school	3
High school	4
College/University	5
NGO School	6
Others (specify)	7

B9:
Can read	1
Cannot read	2

B10:
Agricultural labourer	1
Self employed in agriculture	2
Rickshaw van puller	3
Other transportation worker	4
Other non agricultural worker	5
Skilled salaried worker	6
Unskilled salaried worker	7
Domestic worker	8
Petty trader	9
Business	10
Unemployed, looking for a job	11
Unwilling to work	12
Retired	13
Not able to work (handicapped)	14
Beggar	15

The question on clothes and footwear spending is asked in the presence of the spouse of the head of the household to ensure an accurate figure. If the clothes are sewn at home, the costs of the materials need to be provided.

Section C. Children Members of Household (from 0 to 14 years)

C1 ID Code	C2 Name	C3 Age	C4 Sex	C5 Education	C6 Occupation	C7 Clothing and Footwear Expenses for the Last 12 Months
1.						
2.						
3.						
4.						
5.						

The question regarding clothing and footwear expenses are asked after this has been asked for adults. Again, this needs to be done in the presence of the spouse of the household head. If the clothes are sewn at home, the costs of the materials need to be provided.

Section D. Food-related Indicators

Sl #	Question	Answer	Skip
D.1.	Did any special event occur in the last 2 days? (For example, Family event, Funeral, Wedding, Visitor, Eid)	Yes 1 →D3 No 2	→D3
D.2.	(If no) How many freshly cooked meals were served to the household members during the last 2 days?	Number ▢	
D.3.	(If yes) how many freshly cooked meals were served to the household members during the last 2 days preceding the special event?	Number ▢	
D.4.	Were there any special events in the last 7 days? (For example, Family event, Funeral, Wedding, Visitor, Eid)	Yes 1 No 2 → D6	→ D6
D.5.	**(If yes, the next two questions should refer to the week preceding the special event)** During the last 7 days, for how many days were the following foods served in a main meal eaten by the household? **Quality food** **Number of days served** Egg Dal Fish Meat Rice		
D.6.	During the last 7 days, for how many days did a main meal consist of just *plain rice*?	No of days ▢	
D.7.	During the last 7 days, for how many days did your household not have enough to eat?	No of days ▢	

D.8.	During the last 12 months, for how many months did your households have at least one day without enough to eat?	No of months		
D.9.	How often do you purchase the items listed in the next column Daily (1) Once a week (2) Twice a week (3) Once a fortnight (4) Once a month (5) Less frequently than monthly (6)	Rice Dal Fish Meat Spices Vegetable		
D.10.	For how many days do you have a stock of the following in your house:	**Number of days** Rice Dal		
D.11.	How would you rank your household's food security?	Chronically food deficit Occasionaly food deficit Break even Surplus	1 2 3	
D.12.	Do you or members of your family glean after harvest in order to complement your food stock?	Yes No	1 2 →	D.13.
D.13.	How important is this source of food for your family?	Essential Important Not very important	1 2 3	
D.14.	Do you or members of your family fish in the winter season in order to complement your food stock?		1 2 →	D.15.
D.15.	How important is this source of food for your family?	Essential Important Not very important	1 2 3	
D.16.	If your household earnings increased by Taka 100/- a month, how much of that would you spend on…..	Food Savings Others		

Section E. Dwelling Related Indicators

(information should be collected about the dwelling in which the family currently resides)

Sl #	Question	Answer	
E.1.	How many rooms does the dwelling have?	No. of rooms	
E.2.	What is the area of the main room of your house (in square foot)		
E.3.	What type of roofing material is used in the main house?	CI sheets	1
		Thatch	2
		Tiles	3
		Concrete	4
E.4.	What type of exterior walls does the main house have?	Mud walls	1
		CI sheets	2
		Timber	3
		Bamboo	4
		Thatch	5
		Brick	6
E.5.	What type of flooring does the main house have?	Mud	1
		Cement	2
		Timber	3
E.6.	Rate the condition of the main house.	Seriously dilapidated	1
		Need for major repairs	2
		Sound structure	3
E.7.	What is the electricity supply?	No connection	1
		Shared connection	2
		Own connection	3
E.8.	What type of cooking fuel source is used primarily?	Dung	1
		Wood	2
		Gas	3
		Electricity	4

E.9.	What is source of drinking water?	Deep tubewell	1
		Shallow tubewell	2
		Pond	3
		Khal/River water	4
		Rain water	5
		Well	6
E.10.	What type of toilet facility is available?	Sanitary latrine	1
		Slab Latrine	2
		Kancha	3
		Hanging	4
		Open space	56
		Others	

Section-F. Others Asset-Based Indicators

Sl #	Question	Answer
F.1.	Size of homestead land	In decimals
F.2.	Size of homestead land *owned*	In decimals
F.3.	Size of land cultivable land *owned* by the household	In decimals
F.4.	Size of land operated by the household	

F.5.	Number and value of selected assets owned by household (eliminate assets bought with the PDBF money, if any)	
Asset Type and Code	*Number owned*	*Resale value at current market price (Total Amount)*
1. Livestock:		
1.1. Cattle		
1.2. Adult sheep and goats		
1.3. Traditional adult poultry		
1.4. HYV adult poultry		
2. Transportation:		
2.1. Cycle		
2.2. Van		
2.3. Rickshaw		
2.4. Boat		
2.5. Automated transport		
3. Appliances / Electronics:		
3.1.Television		
3.2. Radio		
3.3. Cassette Recorder		
3.4. Cell phone		
3.5. Table fan/ Ceiling fan		
4. Furniture:		
4.1. Bed		
4.2. Table		

4.3. Chair		
4.4. Trunk		
4.5. Alna		
4.6. Almari		
4.7. Meatsafe		
4.8 others (specify)		

Section-G. Involvement with MFIs

Sl #	Question	Answer		Skip
G.1.	Is there any member of the household who is *currently* a member of an NGO/institution that gives microcredit	Yes No	1 2	→ G3
G.2.	Complete the table for all *current* NGO participating members of the household (write name of member from Section B table. If more than 3 members, then add column):			

	HH Member 1	HH Member 2	HH Member 3
HH member name (LNO)			
Current NGO 1 information			
Name of current NGO 1 (Code)			
Join Year current NGO 1			
No. of loans from current NGO1			
Current NGO 2 information			
Name of current NGO 2 (Code)			
Join Year current NGO 2			
No. of loans current from NGO2			
Current NGO 3 information			
Name of current NGO 3 (Code)			
Join Year current NGO 3			
No. of loans from current NGO3			

	HH Member 1	HH Member 2	HH Member 3
Past NGO 1 information			
Name of past NGO 1 (Code)			
Join Year past NGO 1			
Leave year past NGO 1			
No. of loans from past NGO1			
Past NGO 2 information			
Name of past NGO 2 (Code)			
Join Year past NGO 2			
Leave year past NGO 2			
No. of loans from past NGO 2			
Past NGO 3 information			
Name of past NGO 3 (Code)			
Join Year past NGO 3			
Leave year past NGO 3			
No. of loans from past NGO 3			

Sl #	Question	Answer		Skip
G.3.	Is there any member of the household who took microcredit before but not now?	Yes No	1 2	 → G 5
G.4.	Complete the table below for all household members who took microcredit in the past but not now			
	HH Member 1	HH Member 2	HH Member 3	
HH member name (LNO)				
Past NGO 1 information				
Name of past NGO 1 (Code)				
Join Year past NGO 1				
Leave year past NGO 1				
Reason for leaving past NGO1*				

No. of loans from past NGO1			
Past NGO 2 information			
Name of past NGO 2 (Code)			
Join Year past NGO 2			
Leave year past NGO 2			
Reason for leaving past NGO 2*			
No. of loans from past NGO 2			
Past NGO 3 information			
Name of past NGO 3 (Code)			
Join Year past NGO 3			
Leave year past NGO 3			
Reason for leaving past NGO 3*			
No. of loans from past NGO 3			

Code for 'Reason for leaving':

01= couldn't manage the pressure of weekly repayment

02= due to family crisis had to spend a lot of money and therefore couldn't repay loan

03=samity leaders favoured their own people for loans

04=had more loss than benefit with samity loan

05=too high interest rate

06=was not allowed to use money as I wanted

07=too many internal conflicts within the samity

08=most members of the samity better off than me, they didn't want me to continue

09=others (specify)

Sl #	Question	Answer	Skip
G.5.	(If the household has had more than one NGO participation): How would you rank the NGOs you have so far borrowed from (0 if no preference)?	1st _____ 2nd _____ 3rd _____	
G.6.1	There are many NGOs giving microcredit in your area. If you had the choice, which NGO would you (0 if no response) prefer the most?	1. _____ 2. _____ 3. _____ Reasons behind preferring: _____ _____ _____ _____ _____	
G.6.2	There are many NGOs giving microcredit in your area. If you had the choice, which NGO would you (0 if no response) prefer the most?	1. _____ 2. _____ 3. _____ Reasons behind not preferring: _____ _____ _____ _____	

		_____	
G.7.	(If PDBF not mentioned in G.6.1 or G.6.2), How would you rank PDBF?	Among the most preferred 1 Somewhat preferred 2 Not preferred 3 Have not heard of PDBF 4	

Section-H. Household MFI Non-Participation

Sl #	Question	Answer		Skip
H.1.	(For households who never took microcredit): Is your household interested in taking microcredit?	Yes	1	
		No	2	H.3.
H.2.	If yes, why has not anyone yet joined a NGO to take microcredit (Probe and write reasons in terms of importance)?	1st reason: _____ 2nd reason: _____ 3rd reason: _____		
H.3.	If no, why is your household not interested (Probe and write reasons in terms of importance)?	1st reason: _____ 2nd reason: _____ 3rd reason: _____		

Annex 2. Box-plotting of the poverty scores by client status, by area
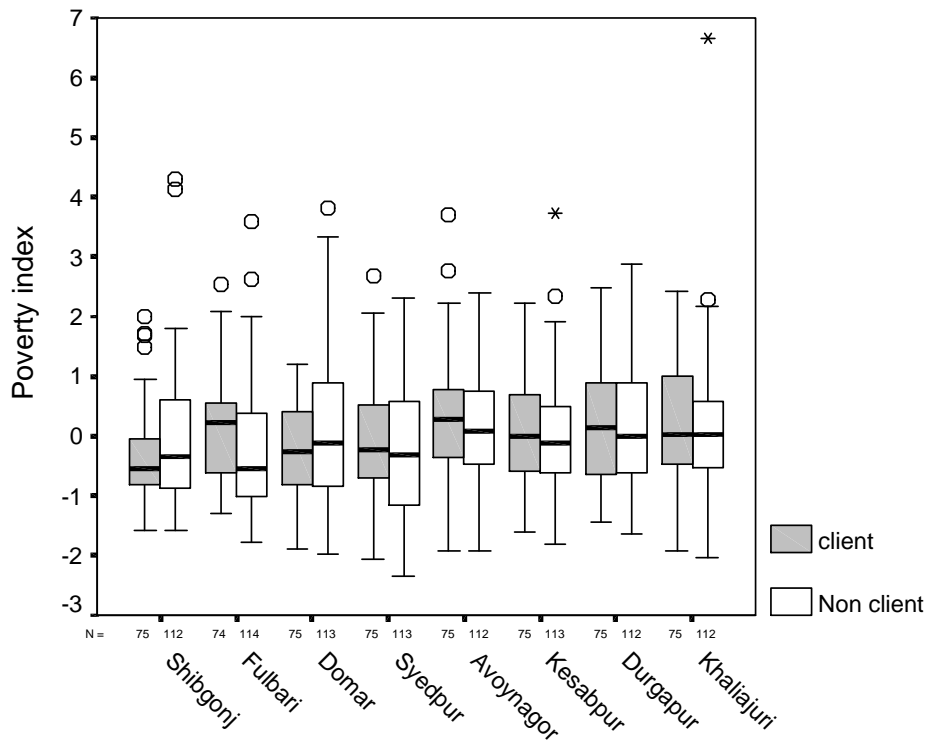
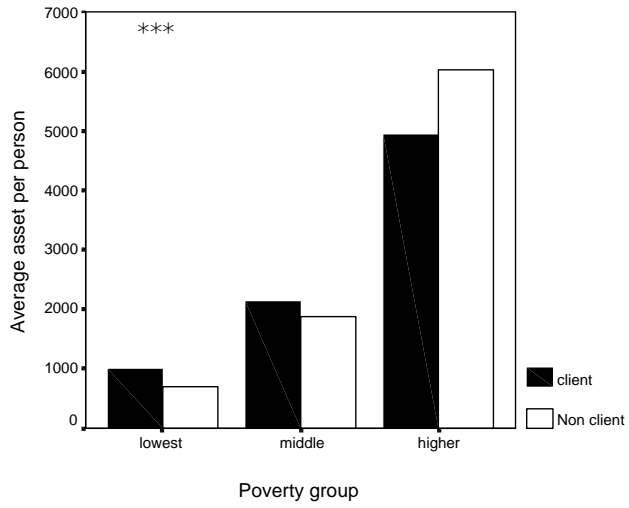**Annex 3. Checking the quality of the poverty index**

Stars indicate significant differences between the client and non-client groups with a poverty category (* , ** and *** translate respectively a 10%, 5% and 1% significance level)
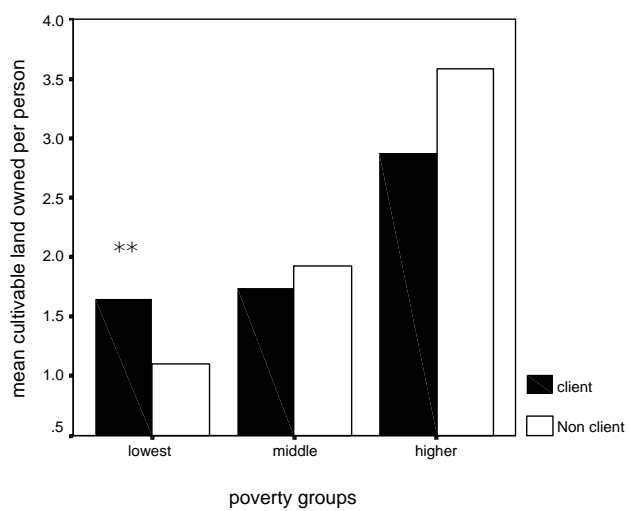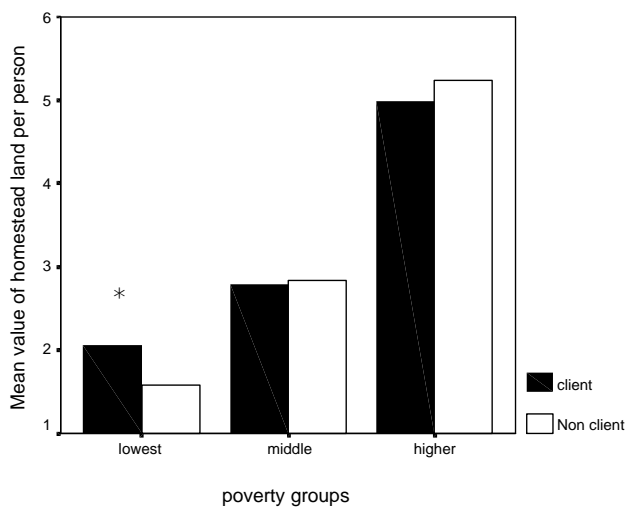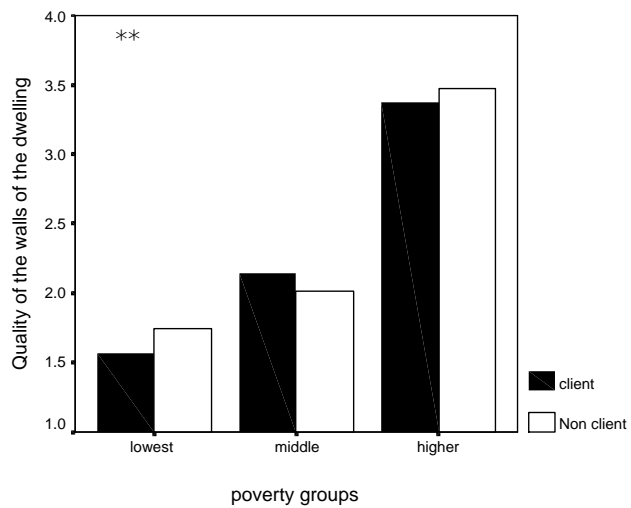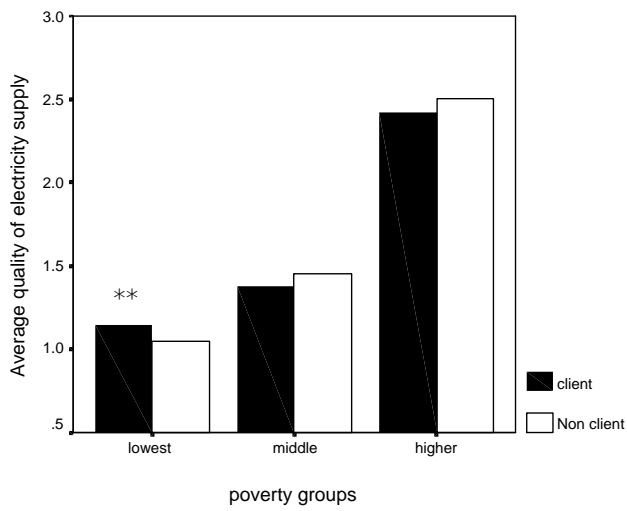
Education

.4

proportion of adults who completed class 12

**   **

.3

.2

.1

0.0

lowest   middle   higher

poverty groups

■ client
☐ Non client

.05

proportion of adults who studied beyond class 12

.04

.03

.02

.01

0.00

lowest   middle   higher

poverty groups

■ client
☐ Non client

.5

Proportion of adults not having attended school

*

.4

.3

.2

.1

0.0

lowest   middle   higher

Poverty group

■ client
☐ Non client

Assets

Mean value of homestead land per person

poverty groups

mean cultivable land owned per person

poverty groups

Dwelling

Quality of the walls of the dwelling

poverty groups

Poverty groups

poverty groups

Food security

poverty groups

average number of days for which hh has stock of rice

***

200

100

0

lowest   middle   higher

poverty groups

client
Non client

average freshly cooked meals served in last 2 days

*   ***

1.2

1.0

.8

.6

.4

.2

lowest   middle   higher

poverty groups

client
Non client

days of food deficit in last year

***

100

80

60

40

20

0

lowest   middle   higher

poverty groups

client
Non client

Types of food

Demographics