



## ASSESSING THE RELATIVE POVERTY OF MICROFINANCE CLIENTS: A CGAP OPERATIONAL TOOL

*The CGAP Poverty Assessment Tool provides transparency on the depth of poverty outreach of MFIs. It provides rigorous data on the levels of poverty of clients relative to people within the same community through the construction of a multidimensional poverty index that allows for comparisons between MFIs and across countries. It has been primarily designed for donors and investors who would require a more standardized, globally applicable and rigorous set of indicators to make poverty-focused funding decisions. The tool involves a survey of 200 randomly selected clients and 300 non clients, takes about four months to complete and costs around \$10,000. Field tests were successfully completed in four countries. The Poverty Assessment Tool should be used in conjunction with other appraisal tools (such as the CGAP Appraisal Format) to ensure a holistic understanding of MFIs.*

### The Consultative Group to Assist the Poorest

1818 H Street, NW  
Washington, DC  
20433

Tel: 202 473 9594  
Fax: 202 522 3744

Email:  
[cgap@worldbank.org](mailto:cgap@worldbank.org)

Web:  
[www.cgap.org](http://www.cgap.org)

### The Context

CGAP is committed to the twin objectives of increasing the financial and institutional sustainability of microfinance institutions (MFIs) and deepening their poverty focus (i.e. increasing poverty outreach and impact on poorer people). As part of this commitment, and in its role as a service provider to the microfinance industry, CGAP has continually endeavored to provide tools that allow for greater transparency of MFI performance in meeting such objectives. The CGAP Appraisal Format was developed to provide practical guidelines and indicators for measuring MFI performance in governance, management and leadership, mission and plans, systems, operations, human resource management, products, portfolio quality and financial analysis. Analysis of these institutional features would in turn allow for an appraisal of the potential for institutional viability and sustainability.

The focus on transparency thus far, has centered around financial performance. There has been a marked under-emphasis on the equally important issue of transparency of the poverty focus of MFIs. The CGAP Poverty Assessment Tool has therefore been developed as a much needed tool to provide transparency on the depth of poverty outreach of MFIs. Using the tool involves random sample surveys of clients and non-clients. Statistical analysis provides rigorous data on the levels of poverty of clients relative to people within the same community. The tool constructs a multidimensional poverty index that allows for comparisons between MFIs and across countries. Targeting tools (such as the housing index, means testing and participatory wealth ranking) have long been used to effectively target services to very poor people. The Poverty Assessment Tool is not a substitute for these. The Poverty Assessment Tool is far more complicated, time-consuming and costly. It has been primarily designed for donors and investors who would require a more standardized, globally applicable and rigorous set of indicators than what targeting tools could provide.

### Development of the Tool

CGAP commissioned the International Food Policy Research Institute (IFPRI) to work with CGAP staff (Brigit Helms, Syed Hashemi and Elizabeth Littlefield) to develop a simple, operational tool that would provide reliable statistical information on the poverty level of MFI clients at the lowest possible cost. The IFPRI team, led by Manfred Zeller, conducted extensive literature review and expert consultation on the general use and applicability of poverty indicators. They then developed a set of indicators reflecting the multidimensionality of poverty (income potential, asset ownership, human capital, social capital, nutritional levels, access to food, shelter and clothing, security, etc). The indicators were selected on the basis of their reliability, simplicity, discriminating quality and universal applicability. A generic questionnaire, open to changes and revisions given different social and cultural contexts, was also prepared. This questionnaire was then used with local research firms in surveys of clients of four MFIs in four different contexts in differing geographical areas (two in Africa, one in South Asia, and one in Central America). The findings of the surveys, the construction of poverty indices, and the resulting measurement of MFI depth of outreach were shared with the MFIs, grassroots practitioners, academics and other people in the microfinance industry. Inputs from such dialogues were used to revise the manual. The entire process of developing the tool took a year and a half, and seven months of CGAP staff time.

### Who Is the Tool For?

The tool is intended primarily for use by donors that focus on poverty outreach to form part of their appraisal of MFIs for funding. It should be used in conjunction with other appraisal tools (such as the CGAP Appraisal Format) to ensure a holistic understanding of MFIs. While the tool is relatively simple it still presupposes a certain level of statistical skills and familiarity with the statistical package SPSS. It is expected

therefore that the team implementing the tool have both a social sciences background with knowledge of poverty issues as well as basic statistical experience. Donors would hire such teams locally. Our experience has been that most countries have research institutions and private firms that are well qualified for such activity. In all the field tests concluded so far, CGAP has used local teams. Given the need for technical expertise and the resources involved in running such surveys, MFIs themselves are generally not encouraged to take on the tasks themselves. This is primarily a donor tool to inform them of the depth of outreach of MFIs, to better make funding decisions. Of course the information does have great value for MFIs.

### How Expensive Is It to Use the Tool?

The cost of surveys that CGAP has conducted range from \$4,000 to \$16,000. The average cost for conducting the survey should be around \$10,000. The assessment of poverty levels of MFI clients, from adapting the questionnaire, to conducting the survey, analyzing the data and preparing the final report, should take about four months.

### Sampling Design

A sample size of 200 MFI clients and 300 comparison households is recommended to ensure a balance between reliability and the high costs involved in much larger surveys. The household is the basic sampling unit. Only new MFI clients (less than six months into the program) are sampled to eliminate any impact from being in the program. Comparison households are selected randomly from the same geographical area of MFI operation so that comparisons can be made between those that are selected to be in the MFI program and those who represent the general community.

### Dimensions of Poverty

The survey tries to elicit information on different dimensions of poverty. However the questionnaire has been designed to be simple and operational. Obviously, specific questions and the wording of each question has to be modified and adapted in each study to ensure that it addresses the social and cultural contexts of the region where the study takes place. For example to determine levels of food consumption, information is collected on the consumption of “inferior food”. However the specific inferior food used in the questionnaire varies from cassava in Kenya to coarse bread and chili in India to tortillas in Nicaragua. Similarly for asset ownership different commodities would be used in different countries representing the best indicators for marking different economic levels of households.

The survey collects information on households on the following dimensions:

- *Demographic structure and economic activities*
- *Footwear and clothing expenditure*
- *Food security and vulnerability: frequency of meals, consumption of luxury and inferior food, hunger episodes*

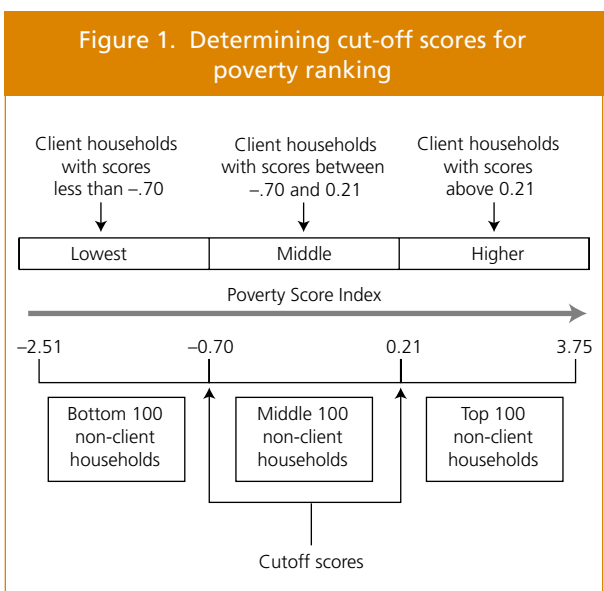
- *Housing indicators: ownership status, room size, building material, access to electricity, drinking water and sanitation, cooking fuel*
- *Land ownership*
- *Ownership of assets: livestock, productive assets and consumption assets*

The emphasis on a variety of indicators stem from a realization that poverty is multidimensional and that any one indicator would not be capable of capturing poverty levels across different countries and contexts. For example while land ownership in rural Bangladesh and housing structure in South and South East Asia are very good indicators of economic levels there, they have very little relevance for parts of Africa and Latin America. Additionally the use of multiple indicators provides for a better approximation of poverty levels.

### Data Analysis and Construction of the Poverty Index

The survey manual explains the data analysis process using SPSS, probably the most widely used software package. Of course any other statistical package can be used but the construction of the Poverty Index using principal component analysis is best done with SPSS. While the analysis is not overly complicated it is assumed that analysts will have some competencies in statistical analysis.

Simple crosstabs will provide immediate comparisons of clients and non-clients in terms of different indicators. However the key feature of the Poverty Assessment Tool is the Poverty Index. The Poverty Index is constructed through the application of principal component analysis (PCA). 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. Which combinations of indicators prove the most instrumental in measuring relative poverty in a given survey area will differ, and often in ways that are somewhat



predictable. In countries where poverty is extreme, indicators signaling chronic hunger tend to differentiate the relative poverty of households. In densely populated countries, ownership of land and dwellings may better signal differences in relative poverty. The end result of PCA is the creation of a single index of relative poverty that assigns to each sample household a specific value, called a score, representing that household's poverty status in relation to all other households in the sample. The lower the score, the poorer the household relative to all others with higher scores. The scores of MFI client households and non-client households are then compared to indicate the extent to which the MFI reaches the poor.

First, however, the share of the local population that is likely to fit the assessment's definition of poor must be decided on. CGAP, in its assessments, has used a cutoff of 33 percent of the control population to define the poorest group within the local population. This decision is based on the usefulness of categorizing local populations into terciles that can be broadly interpreted to represent the lowest, middle and higher ranked groups of households ranked by relative poverty. The methodology can be adapted to include additional categorization. If half of the people in a country are below the poverty line and if the bottom 25 percent are said to be the hard-core poor, then the local population (the comparison group) can be divided into quartiles. Other divisions can also easily be made.

Each assessment study includes a random sample of 300 non-client households and 200 client households. To use the Poverty Index for making comparisons, the non-client sample is first sorted in an ascending order according to its index score. Once sorted, non-client households are divided in terciles based on their Poverty Index score: the top third of the non-client households are grouped in the "higher" ranked group, followed by the "middle" ranked group and finally the bottom third in the "lowest" ranked group. Since there are 300 non-clients, each group contains 100 households each. The cutoff scores for each tercile define the limits of each poverty group. Client households are then categorized into the three groups based on their household scores. Figure 1 illustrates the use of cutoff scores to create poverty terciles from non-client households. The cutoff scores of  $-0.70$  and  $+0.21$  were calculated from an actual case study example. Each poverty assessment will use different cutoff scores to group households.

Now that all cases for MFI clients and non-clients have been assigned to poverty groupings, comparing differences between the two distributions is possible. If the pattern of client households' poverty matches that of the non-client households, client households would divide equally among the three poverty groupings just as the non-client households, with 33 percent falling in each group. Hence any deviation from this equal proportion signals a difference between

the client and the non-client population. For instance, if 60 percent of the client households fall into the first tercile or lowest poverty category, the MFI reaches a disproportionate number of very poor clients relative to the general population.

Figure 2 shows the results of one of the four case studies highlighting significant differences in the poverty distribution between clients and non-clients. The graph shows that clients are over-represented within the lowest tercile and under-represented in the highest tercile. This would indicate that the MFI is reaching a larger share of poorest households than what is found in the population in general. In contrast, the results of another case study found the opposite pattern. In Figure 3, the results indicate that MFI clients are under-represented in the lowest tercile and over-represented in the highest tercile.

Figure 2. MFI with extensive poverty outreach

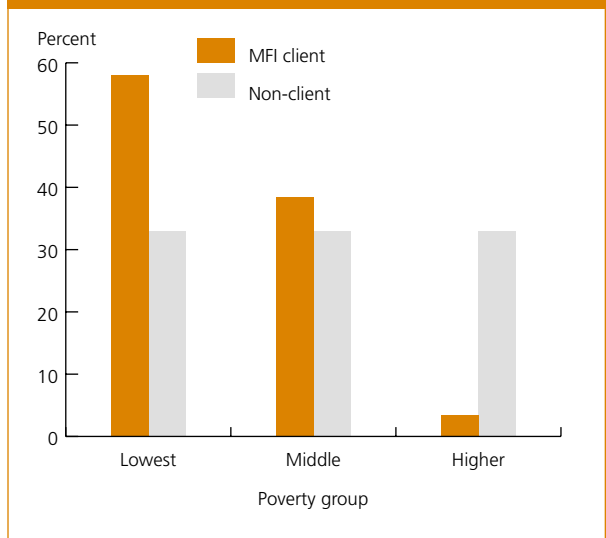
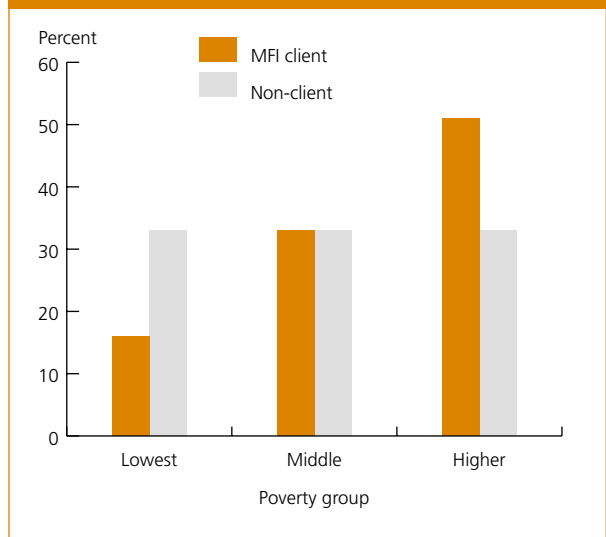


Figure 3. MFI with lower poverty outreach



## Integrating a National Comparison

The Poverty Index allows for a comparison of poverty levels of clients and non-clients in a specific region. It does not say, however, whether the region itself is in a better-off or worse-off area within the country or even whether the MFI is situated in a poor or wealthy country. The CGAP tool therefore supplements the client survey information with two additional inputs. The first is a national evaluation by a panel of experts who rate the MFI's operational area against a national average. The rating is based on assessments of wages and employment levels, physical and social infrastructure, literacy levels and agricultural conditions (if rural). The second is the use of the Human Development Index to rank the poverty level of the country against all other countries. These then allow appraisers to determine that even if MFI clients may not be very poor relative to non-clients, they still may be reaching very poor people if, for example, they are situated in an economically depressed area in one of the poorest countries in the world.

## Comparisons with Alternative Poverty Assessment Approaches

There are several methods to determine poverty levels of populations that are used by academics, policy makers and development practitioners.

Detailed *Household Expenditure Surveys* including the Living Standard Measurement Survey (conducted by the World Bank) are used nationally for poverty analysis. These surveys are extremely rigorous and provide for more accurate information than CGAP's Poverty Assessment Tool. However such surveys use large samples and detailed data collection that make it far too costly, time consuming, cumbersome and analytically too demanding for use on regular MFI appraisals.

*Rapid Appraisals and Participatory Appraisals* are often used to generate fast information on local level economic conditions. Rapid Appraisals using key informants can often be subjective and even those using discussions with larger community groups leave open problems of reliability. Participatory Appraisals, including Participatory Wealth Ranking<sup>1</sup> used by some MFIs, offer a far more reliable method for communities themselves to identify who the poor are. This allows for a more holistic and people-centric determination of poverty and of ranking. A probably more important function of such methodology is the empowerment of the community. It asserts the primacy of local knowledge over externally determined measurement criteria and lets the community take charge in deciding how rankings are to take place. However while this approach works well in identifying the poor in each village or neighborhood it cannot be used to rank larger populations or determine the poor(est) in a large geographical region.

Many MFI practitioners use the *Housing Index* to determine poverty levels of households. The appeal of

this index lies in it being simple, observable and verifiable. Since dwellings often represent the largest investment of a household and since in many regions there are specific variations in housing patterns (makeshift hut, to thatched house, to tin roof house to brick and concrete houses) reflecting differences in economic levels, housing can be used as an excellent proxy for ranking households. The problem, however, is in generalizing such an indicator across rural and urban differences and across countries. Slum dwellers often live in brick and concrete houses but in far worse conditions than rural families in thatched or tin houses. Other indicators, such as land ownership, work well as proxy indicators in specific contexts but cannot be generalized as valid across regions.

## Use of the CGAP Poverty Assessment Tool

The Poverty Assessment Tool is very clearly not a targeting tool to be used by MFIs. The Housing Index, the Participatory Wealth Ranking exercises, Means Tests and other tools currently being used generally provide good, low-cost targeting information for MFIs. Since the CGAP Tool is statistically rigorous and far more accurate, comparisons of such targeting methodologies with the CGAP Tool at some point in an MFI's growth, however, would indicate the effectiveness of the targeting strategy being used.

The Poverty Assessment Tool is not a market research tool though information from it could be used by MFI management to understand economic levels of their clients. It is also not a baseline survey for use by MFIs though the questionnaire can be adapted and used as part of a baseline design for impact assessment and impact monitoring.

The Poverty Assessment Tool provides rigorous criteria with which to determine the depth of MFI outreach. It forces donors to integrate a poverty focus in their appraisal of MFIs and in their funding decisions. CGAP strongly believes that the future of the microfinance industry lies in moving beyond the poverty-sustainability polemic in favor of pushing the microfinance frontier forward on both poverty outreach and sustainability. There is great scope to creatively improve on both without sacrificing the other. The Poverty Assessment Tool, by making the depth of outreach more transparent, forms an important step to guide us to more effective supporting of a broader range of MFIs.

## Note

1. For more information on both PWR and HI, refer to the excellent piece by Anton Simanowitz, Ben Nkuna and Sukor Kasim "Overcoming the Obstacles of Identifying the Poorest Families: Using Participatory Wealth Ranking (PWR), the CASHPOR House Index (CHI), and Other Measurements to Identify and Encourage the Participation of the Poorest Families, Especially the Women of Those Families," commissioned by the Microcredit Summit, June 2000.