Assessing the Relative Poverty Level in Clients of Microfinance Institutions: An Operational Tool

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Many microfinance institutions (MFIs) receive public support. In return for this support, governments and donors demand MFIs not only become financially sustainable but also reach the poor, or even the poorest of the poor. Effective evaluation of the achievement of these objectives requires appraising both the MFI's financial sustainability and the relative poverty of its clients. In recent years, several tools have emerged to assist donors in their assessment of the financial sustainability of MFIs. For example, the Consultative Group to Assist the Poorest (CGAP), which seeks to promote sustainable microfinance institutions for the poor, disseminates a number of tools that allow assessing the financial sustainability and other aspects of institutional performance of MFIs. Currently, no operational tool exists for measuring how well a MFI reaches the poor through its services. In order to gain more transparency on the depth of poverty outreach, CGAP supported research at IFPRI during 1999 and 2000 to design and test a simple, low-cost operational tool to measure the poverty level of MFI clients relative to nonclients.

This policy brief summarizes the main features of the tool, how it can be applied, and what type of results can be obtained. Another policy brief informs about the results from four test country cases.

> *The new tool can measure the poverty level of clients of microfinance institutions relative to nonclients at low costs. The tool may also be used for evaluating the poverty outreach of other types of development and safety net programs.*

Purpose of the Poverty Assessment Tool

The poverty assessment (PA) tool developed under the collaborative project of IFPRI and CGAP comple-ments an array of methods already available for assessing various dimensions of the institutional performance of MFIs. A widely accepted method in poverty assessment is to conduct a detailed household expenditure survey and to use household total expenditure as the primary measure to evaluate standard of living of households. Although detailed quantitative studies are frequently regarded as accurate means of assessing poverty levels, the high cost of acquiring and analyzing such extensive information often precludes the methodology from being used for operational applications.

Therefore, the new PA tool responds to five specific design parameters set to accommodate microfinance industry needs:

- The tool is operationally straightforward.
- The cost of implementing the tool is relatively low.
- The timeframe for assessment is short.
- The tool specifically addresses poverty measurement in developing countries.
- The results are readily interpretable and comparable across programs and countries.

The Tool Uses Indicators for Assessing Poverty

Consideration of the above mentioned design parameters led to the adoption of an indicator-based poverty-assessment method. This involved

1. identifying a range of indicators that reflect power-fully on poverty levels and for which credible information can be quickly and inexpensively obtained;
2. designing a survey methodology that facilitates the collection of information on these indicators from households living in the operational area of the MFI.

3. testing these indicators in diverse socioeconomic and cultural settings, and identifying those indicators that are strongly related to relative poverty levels in each of the four country cases so as to reduce the number of questions for future applications of the tool; and

4. formulating a single summary index that combined information from a range of indicators and that could be used to make poverty comparisons between client and nonclient households.

Because of the multifaceted nature of poverty, reliance on any one indicator would not be adequate. To capture different dimensions of poverty, IFPRI used the following classification of indicators in the process of developing the generic household-level questionnaire:

1. Indicators expressing the means available to households to increase their welfare. These reflect the earning potential and relate to
   - human capital (family size, education, occupation, etc.),
   - asset ownership,
   - social capital of household.

2. Indicators related to the fulfilment of basic needs:
   - health status and access to health services,
   - access to food, shelter and clothing,
   - other dimensions of achievement of welfare (security, social status, environment) assessments based on this experience.

From an exhaustive list of indicators derived through a literature review and expert consultation, the IFPRI team initially chose to include a smaller subset in a generic questionnaire that then was tested in four case study countries with diverse socioeconomic and cultural settings. In total, about 300 poverty indicators were contained in the questionnaire and tested in the four country case studies.
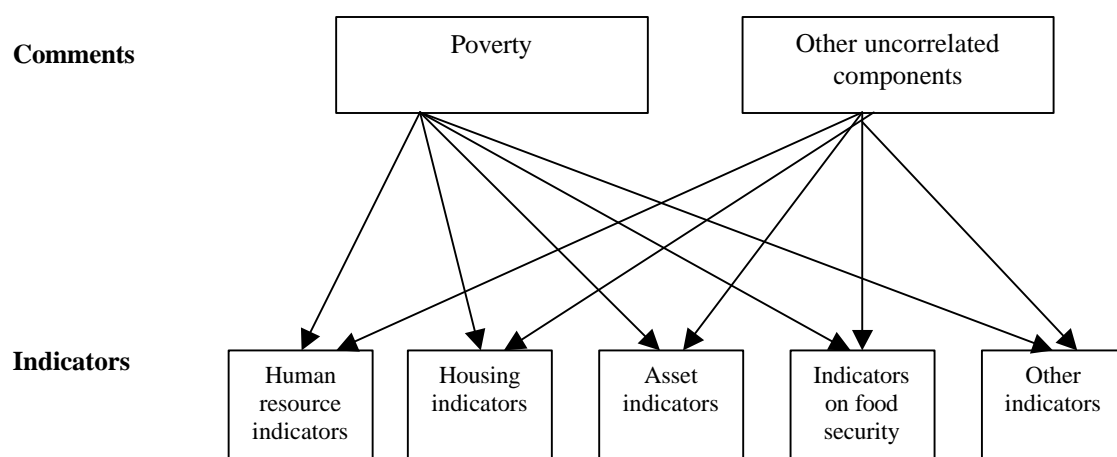
Using Principal Component Analysis to Estimate the Poverty Index

The tool prescribes how to collect household data on a range of poverty indicators through a standardized questionnaire. There are several reasons for identifying poverty indicators that are not specific to a particular country or region, but rather are general in the sense that they can indicate the level of poverty irrespective of socioeconomic characteristics of the chosen countries or regions within countries. First, general indicators allow within-country and across-country comparisons. Second, working from a standardized questionnaire avoids the risks of introducing error and eases the complex task of designing appropriate questions for creating indicators of poverty. However, complete standardization is also impractical, given the inherently relative nature of poverty: the "poor" in a wealthy country may be considered "nonpoor" in another country. Indicators must be such that they easily can be adjusted to different levels of absolute poverty.

Relative poverty levels of sampled households are measured by these indicators through calculation of a household poverty index. This index weighs the relative poverty of each household relative to all others and provides a ranking score. The mean of the score is zero, and its standard deviation is 1. The ranking score indicates how each household's estimated poverty level compares with those of all other households surveyed. The higher the score, the relatively less poor the household is.

To accommodate the needed flexibility in measuring poverty to fit each country situation, estimation of the poverty index itself demands for a flexible approach. In other words, each country requires a different mix of indicators to calculate the most meaningful measurement of relative poverty for that country. For this reason, the statistical technique of principal components analysis was used for determining which indicators contribute the most to creating a poverty index for each individual country. Specifically, PC analysis

Figure 1. Indicators and underlying components

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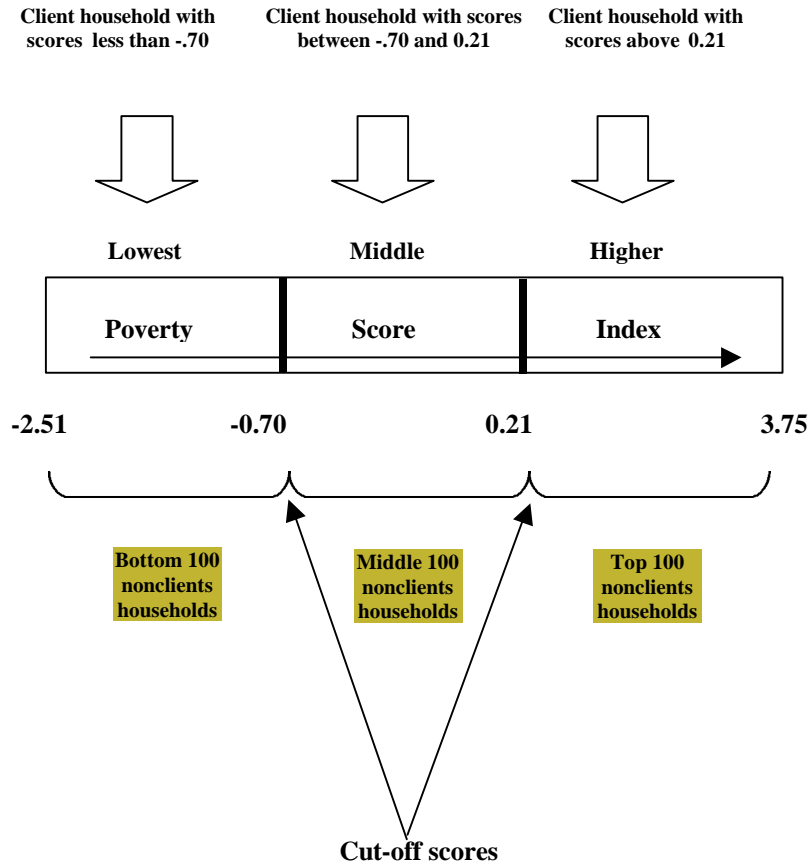Institutions: An
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isolates and measures the poverty component embedded in the various poverty indicators and creates a household-specific poverty score or index (Figure 1). PC analysis extracts underlying components from a set of information provided by summary indicators. In the case of this poverty assessment tool, information collected from the questionnaires make up the "indicators" and the underlying component that is isolated and measured is "poverty."

the "poorest" group (Figure 2). Since there are 300 nonclients, each group contains 100 households each. The cut-off 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.

If the pattern of client households' poverty matches that of the nonclient households, client households would divide equally among the three poverty group-

Figure 2. Constructing poverty groups

Client household with scores less than -.70

Client household with scores between -.70 and 0.21

Client household with scores above 0.21

Lowest　　Middle　　Higher

Poverty　　Score　　Index

-2.51　　-0.70　　0.21　　3.75

Bottom 100 nonclients households

Middle 100 nonclients households

Top 100 nonclients households

Cut-off scores

Application of the Tool Is Supported by a Manual

To guide evaluators in applying the field research tool and to estimate the poverty index, a manual has been written that will be published by CGAP (see Henry et al. 2000). An evaluation involves conducting a household survey with a random sample of 300 nonclient households and 200 client households within the operational area of the MFI. On average, conducting the interview takes about 15 minutes.

To use the poverty index for making comparisons, the nonclient sample is first sorted in an ascending order according to its index score. Once sorted, nonclient households are divided in terciles based on their index score: the top third of the nonclient households are grouped in the "less poor" group, the middle third grouped in the "poor" group and the bottom third in

ings just as the nonclient households, with 33 percent falling in each group. Hence any deviation from this equal proportion signals a difference between the client and the nonclient population. For instance, if 60 percent of the client households fall into the first tercile or poorest category, the MFI reaches a disproportionate number of very poor clients relative to the general population.

The Results of a Poverty Assessment

The tool compares distributions of client and nonclient relative poverty levels by creating terciles of poverty groups based on poverty scores for nonclient households and adds MFI client households to these groupings according to their poverty-ranking scores. For example, MFIs having a greater share of their client households placed in the poorest tercile of the general population are credited with having a more

favorable poverty outreach profile than MFIs having a smaller share assigned to the poorest tercile. Figure 3 shows the outcome of a recent assessment in one of the case-study countries.

Figure 3. Results of a recent MFI poverty-assessment case
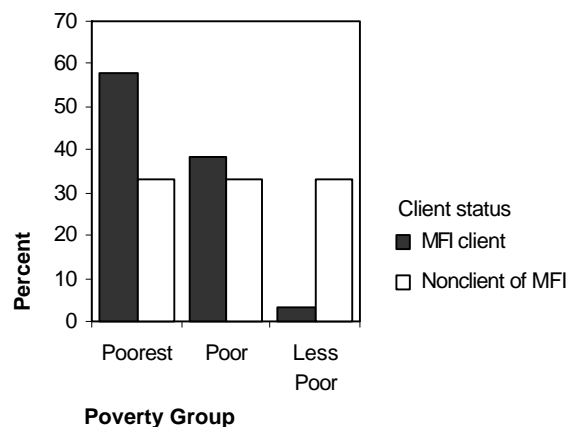
It is recommended that assessment of the MFI's relative poverty outreach be made not only within the operational area of the MFI, but also in the context of regional poverty within a country. Recent research indicates that MFIs tend to locate their operations in above-average regions where transactions costs are lower and market volume is higher (Sharma and Zeller 1999). In addition, to assess the MFI's poverty outreach on an international scale, it is recommended that the country's poverty level be compared with those of other developing countries. The tool recommends this relative poverty comparison based on the Human Development Index (HDI), developed by the United Nations Development Program, and published annually in the *Human Development Report*. On average, households located in countries registering relatively low HDI rankings can be seen as relatively poorer than households from countries ranked higher in HDI.

Concluding Remarks

During the second half of 1999, the methodology was field tested by IFPRI in collaboration with national research institutions and counterparts in four case studies in Asia, Africa, and Latin America. Overall, these tests have shown that the tool is useful and sufficiently simple for evaluating the poverty outreach of MFIs in an operational context. Moreover, the case studies have shown that the four MFIs differ not only in terms of poverty outreach, but also in the mission they define for themselves, the type of market niche they seek for themselves, their preference for a specific type of institutional culture, and a host of conditions imposed by other external actors at various levels. Poverty assessment results have to be interpreted in light of these considerations. Ignoring them or providing incomplete information on institutional details

fails to tell a complete story. Before recommending the use of the poverty assessment tool for widespread use, the tool ought to be further tested and eventually improved. For this purpose, a manual will be disseminated by CGAP that will assist future users in applying the tool. ∎

Selected References

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