**Introduction**

Anybody who works in or with developing countries must now be familiar with the theme of poverty reduction. Many have heard of the goal of reducing the proportion of people living in extreme poverty in developing countries by at least one-half between 1990 and 2015. This target came out of the UN Global Conference on Social Development (Copenhagen, 1995), and has been endorsed by the UN, the OECD’s Development Assistance Committee (DAC), the IMF, the World Bank, and most governments around the world.

Poverty reduction has become a central focus of multilateral and bilateral aid programmes to developing countries, especially those who qualify for debt relief under the Highly Indebted Poor Countries (HIPC) initiative.

How can we find out if poverty reduction is actually happening? It is common to use the poverty line of US$1 per day to measure poverty. If the number of people living on US$1 per day or less halves between 1990 and 2015, the target will have been met. Household surveys measuring income and expenditure can help to document progress - or the lack of it - in each developing country.

But many people see the US$1 per day approach as being over-simplistic. Firstly, they point out that for many subsistence or semi-subsistence communities it is difficult to measure poverty using money because many transactions in daily life do not involve money. Secondly, human poverty is not only a question of income. It involves livelihood insecurity, vulnerability, deprivation, exclusion, lack of access to basic services, gender divisions, and other factors. It is even important to consider people’s perceptions of their quality of life (well-being). This line of thought has led to more ‘qualitative’, complex assessments of poverty, often involving participatory research methodologies. The most well known are the World Bank’s Participatory Poverty Assessments (PPAs) and its Consultations with the Poor (now known as Voices of the Poor) studies, which were done in 1999 (Narayan et al., 2000).

**Are we succeeding in targeting the poor?**

Like the income and expenditure survey approach, the ‘human poverty’ approach can paint a general picture of a country at different stages of progress towards meeting its poverty reduction goals. For instance, as part of a HIPC Poverty Reduction Strategy, a country-wide survey and a qualitative study (e.g. a Participatory Poverty Assessment) may be used every few years to monitor progress towards meeting targets.

But neither of these approaches is much use for day-to-day decision making. Policymakers, civil servants or NGO
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employees who have to implement the initiatives designed to reduce poverty need a different kind of information. They need to know whether a particular project or programme is working. If it is, then they may decide to continue implementing it. If it is not, they may consider shifting resources to another, more successful initiative. Frequent small-scale evaluations are needed, in which a key question is: ‘Did the intervention succeed in targeting the poor?’.

Questions about the impact of specific interventions cannot be answered by the type of household surveys usually carried out by national statistical offices – even if appropriate questions were to be included in the questionnaire – because the population surveyed is unlikely to coincide with the population targeted by the intervention. Most studies based on participatory methods do not answer these questions either, because the measurements of human poverty elicited during participation tend to be relative (see below), so it is difficult to compare findings between sites and over a period of time.

As part of work carried out in Malawi over the past four years during evaluations of the Targeted Inputs Programme (TIP), we have developed two ways of measuring poverty for assessment of poverty-targeting interventions. The first uses tailor-made surveys incorporating a rough-and-ready poverty index. The second adapts participatory approaches. Both methods have proven effective, but the first is only possible with a relatively large budget and the technical capacity for carrying out a survey. This article presents what has been done so far with the participatory approach and discusses the challenges that lie ahead.

Measuring poverty in Malawi using PLA

The participatory approach to measuring poverty for assessments of poverty-targeting interventions has been developed by a partnership between researchers based at The University of Reading and The University of Malawi. Development of the concepts has also benefited from discussions with members of the Parti Numbers group (an informal group looking at the whole subject of deriving numbers from participatory approaches and methods). The approach involves:

- absolute as well as relative measurements of poverty;
- a technique called community mapping with cards.

Relative and absolute

The first of the studies in Malawi, entitled Consultations with the Poor on Safety Nets, began by asking a group of five to ten participants in each community to define categories of wealth/poverty and vulnerability. It found that, ‘Communities often distinguished many categories, with characteristics being a mixture of poverty and vulnerability’ (Chingsinga et al., 2001). For instance, in Chikadza village in Chikwawa (Southern region), they classified households into three categories: poor; medium; and rich. In Chakuwereka village in Karonga (Northern region), they identified four categories: the relatively well-to-do; the ‘struggling’; the very poor; and the vulnerable. And in Kasalika village in Lilongwe (Central region), they distinguished six categories of household: the ‘struggling’; the very, very poor; the poor; the elderly; households with orphans; and ‘average’ households.

A major problem with this sort of approach, in which communities are asked to define the categories, is that they vary from place to place. How can we compare the outcomes in Chikadza and Kasalika? Even if we have asked the participants to divide the community so that we have an idea of the proportion of households belonging to different categories, we find ourselves on difficult ground. In Chikadza the participants identified 139 ‘poor’ households out of a total of 181, representing 77% of the village. In Kasalika only five households were described as ‘poor’ – 10% of the village. Of course, other categories might also be regarded as poor in Kasalika. The problem is, which ones to include? And how poor are the ones we might decide to include in Kasalika, compared with the poor identified in Chikadza?

Perhaps we are more interested (from a policy perspective) in the ‘very, very poor’, as identified in Kasalika. But how can we compare the situation in Kasalika with that in Chikadza, where no such category was defined, or in Chakuwereka, where we cannot be sure if the equivalent is the ‘very poor’, or the ‘vulnerable’, or some households in both categories.

This problem is one which many practitioners will recognise, because most participatory studies of poverty adopt a similar approach, using some form of wealth ranking based on local definitions (see Box 1). From the point of view of policymakers who need an answer to the question, ‘Did the intervention succeed in targeting the poor?’ these relative

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*TIP provides a small pack of free agricultural inputs (10 kg of fertilizer, 2 kg of maize seed and 1 kg of legume seed) to smallholder farmers.*
measurements of poverty within each community are not enough. They need a more absolute yardstick: something that will be able to distinguish consistently the ‘poor’ and the ‘very, very poor’ in all communities where the intervention has occurred.

The second of our series of Malawi studies, entitled TIP Messages (Chinsinga et al., 2002) worked with a more absolute definition of poverty. In our view, such definitions are quite specific to each developing country (or part of it), and should be developed through discussions with communities about how they see poverty, and by consulting previous research. We had the benefit of the Consultations with the Poor workshop, observed that, ‘Respondents in rural areas start facing severe food shortages before Christmas. Food security is by no means a perfect indicator of poverty, and it might be argued that others are better, but the principle is to find something that is:

- meaningful to participants (and means the same in every place);
- simple, so that it is clear which category each household fits into; and
- capable of differentiating between the groups of interest to the study, such as the well-off, the poor, and the extremely poor.

Unlike when asking communities to define poverty/vulnerability in their own terms, or when looking at the various aspects of ‘human poverty’, it should be stressed that the aim here is to avoid complexity. We only need to divide the village into different groups so that we can assess the impact of an intervention. Of course the two approaches are not mutually exclusive – it would be possible to have a broad discussion of poverty/vulnerability and then use a simple, absolute poverty indicator to divide the village into groups.

Community mapping with cards
The method used for dividing the village into food security/poverty groups and assessing whether or not the intervention (the TIP in this case) succeeded in targeting the poor was simple. We asked five to ten community members to draw a social map. The participants were asked to mark every household in the village on the map and to give it a number. Then they prepared a card for each household, with the name of the household head and the household number as shown on the map. It was vital that every household in the village appeared on the map and had a card with the same number as on the map.

The facilitator then introduced the discussion of food insecurity, explaining our definitions, and asking participants what were the characteristics of households in each category.

Box 1: Relative wealth/well-being ranking
The methodology guide for the World Bank’s series of studies, Consultations with the Poor, (World Bank, 1999) asks the facilitator to carry out well-being ranking by establishing:

- Different well-being groups/categories of households/individuals, as identified by the local people. Allow the community to come up with their own categories. Do not impose ideas. There is no fixed number of categories that a community can come up with. Usually these vary between three-to-six categories, but could be more...
- [The] proportion of households/individuals in each of these categories. This could be exact numbers or indicative scores (out of 100, or any predetermined fixed maximum score). This will give an idea about the proportion of poor or deprived people in a community.

Mukherjee’s guide to field methods for PLA (Mukherjee, 2001) describes more sophisticated methods of social grouping on the basis of well-being/poverty/wealth. These are based on social mapping and one of them – Grandin’s Method – uses numbered household cards. But they still group or rank only on the basis of ‘local people’s perceptions’ and ‘locally generated criteria’, missing the opportunity to include an absolute poverty yardstick.

‘From the point of view of policymakers who need an answer to the question, “Did the intervention succeed in targeting the poor?”, these relative measurements of poverty within each community are not enough. They need a more absolute yardstick’

longer period of not having enough to eat. These households start facing severe food shortages before Christmas.
After some discussion, participants were asked to put each household card into the appropriate food security category, and its food security status (FSS) was marked on the card by the facilitator. Finally, participants were asked to say which households received a TIP pack, and the facilitator marked the TIP status (TS) of the household on the card.

What have we achieved by using this method? We know for each village, and for all villages together, what proportion of households are extremely food insecure (very poor) and the degree of success achieved in efforts to target these households. Table 1 shows that 32% of households in the villages visited were extremely food insecure in the 2001–02 season, but TIP was not very successful in targeting these households. The report concluded that, "There should have been no food secure TIP recipients, and no extremely food insecure non-recipients. There were considerable "inclusion" and "exclusion" errors in the poverty targeting process" (Chinsinga et al., 2002).

What are the advantages of using this approach? Firstly, it is simple to do and can be understood by most participants. This means that it has a good chance of producing reliable results. Secondly, we have information for all households in the villages visited, which means that we do not run the risk of having a biased sample. In the case of the Chinsinga et al. (2002) study, information was collected on 1343 households.
in 21 villages. Thirdly, it ensures that we have information at household level, but this has been produced quite quickly by asking participants to act as key informants.

The main disadvantages of the approach that we have identified so far are:

• it can be argued that using a proxy for poverty is too simplistic – even for measuring the impact of an intervention – as poverty is a complex issue;
• large villages present problems for mapping and producing cards;
• if you want reliable information at district or national level, you need to do the study in a relatively large number of sites – in Malawi we worked with a minimum of 20 sites for national-level studies – and these need to be selected at random (see Barahona & Levy, 2002).

Ethical considerations and future challenges

There are a number of ethical considerations associated with participatory learning that involves generating numerical data, such as community mapping with cards. They include issues of transparency, consent, and confidentiality. These are the subject of a set of Guidelines and a Code of Conduct which has been drafted by the Parti Numbers group and will be accessible at www.reading.ac.uk/~snsbarah/code by the end of July 2003.

For the future, there are a number of challenges:

• firstly, to ensure that ethical issues are more fully taken into account as community mapping with cards evolves and is adopted by more practitioners;
• secondly, to develop ways of involving participants in the analysis of the numerical data generated in their villages and in feedback into actions that benefit the community;
• finally, to persuade policymakers of the usefulness of this approach, which can play a key role in the process of evaluating poverty-targeted interventions, so that developing countries can make the most of the resources for reducing poverty.
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