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Pushing the limits of mapping and wealth ranking

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· Participatory approaches to poverty targeting

The Small Enterprise Foundation, a micro-finance NGO, works with more than 7500 micro-entrepreneurs in the Northern Province of South Africa, 97% of whom are women. It provides savings and credit facilities to support business development of the poorest people[1].

The Small Enterprise Foundation was set up as a poverty alleviation programme. One of the poorest areas in the country was selected as the operational area. A credit methodology was designed which offered small loans through group-based lending, following the theory that small loans and high transaction costs (in terms of time spent to enter the programme and during the meetings) would deter all but the very poorest from joining.

In reality, the Small Enterprise Foundation found that the need for credit is so great that comparatively wealthy people would join and remain members for a long time in the hope of receiving larger future loans. This meant that the Foundation did not reach the poorest people. Further, it was found that membership of better-off people served as an active deterrent for very poor people, and the target population was thus not being helped. In response to this, the Tshomisano Programme was established, with the mandate to develop an active targeting system, which would identify those people in the community who were eligible for membership of the programme and its services. The Tshomisano Programme targeted the poorest 30 per cent of the population as beneficiaries of their micro-enterprise development loans.

The first targeting system that was designed used a visual indicator of poverty test. This required field workers to score the external conditions of people's houses according to a checklist. With this method, those people living in houses constructed from mud bricks, with poor quality thatch roofing, small windows and in a general state of disrepair, tend to be selected as the poorest. Those who are also poor but who have slightly better constructed houses with cement bricks, zinc roofing, larger windows and a pit latrine do not qualify to benefit from the Programme.

A pilot study to compare participatory wealth ranking with visual indicators of poverty demonstrated the inaccuracy of a system based on static, externally judged criteria, as opposed to local perceptions of poverty. Many instances were cited of people living in poverty whilst having reasonable housing conditions, constructed prior to the main earner dying or deserting the family. In addition, there are many people who are living in poor quality housing, constructing new homes or having their main home elsewhere who falsely qualify as amongst the poorest.

These results convinced the Small Enterprise Foundation of the need to operationalise participatory wealth ranking in place of visual indicators of poverty. The system used is a refinement of the approach in Barbara Grandin's[2] Wealth Ranking manual, but uses a

[1] Over the past 6 years, the Small Enterprise Foundation has disbursed more than South African Rand ZAR 17,238,700, with total defaults of just R1, 268. Exchange rate: US$1: ZAR6

[2] Grandin, B (1988) Wealth Ranking in Small holder Communities: A field manual; IT Publications, UK. See also *RRA Notes* Number 15 1992.

Source: PLA Notes (1999), Issue 34, pp.4–8, IIED London

mapping process to generate the list of household names. It also establishes criteria for assessing the consistency of the results, so as to determine the number of reference groups needed and the reliability of the exercise.

The key difference encountered, however, is the scale of the process in the South African context. Wealth ranking literature commonly describes villages of 70 or 80 households. The South African context typically requires working in villages of 500-700 households (3-5000 people), and in some cases over 1000 households. Obviously, trying to sort this number of cards with a single reference group is impossible.

Adapting wealth ranking

The Small Enterprise Foundation is a rapidly growing organisation with over 7500 members. It therefore needs to have a targeting system which can be used by a large number of staff on a regular basis. Current plans include wealth ranking in more than 20 villages over the coming six months.

This article focuses on some of the challenges faced in designing a cost-effective system, based on participatory mapping and wealth ranking, that would be effective in large villages. The challenges lie both in the design of the methodology and in its operationalisation, including training and assessment to ensure that fundamental principles of participation are not compromised and quality is maintained.

The system is now fully in place and has been documented in an operational manual[3]. Training and assessment have been completed with around 20 staff, with three levels of qualification: facilitator, co-ordinator, and trainer/assessor. The pass rate has been around 50 per cent on each assessment, with staff being allowed a maximum of two attempts.

To date, about twenty villages (ranging from 500-1100 households) have been involved in the participatory wealth ranking process. In all cases, consistent results have been achieved and have been used in the identification of potential Tshomisano members.

The case-study below illustrates the application of the methodology. It is followed by a discussion of some of the wider issues of the relevance and use of wealth ranking in the context of a microfinance programme.

· Case-study: wealth ranking in Bhungeni

Faced with a village of almost 5,000 people and eight field workers expecting to be trained in wealth ranking, and to have the effectiveness of the method demonstrated to them, I realised the challenge facing us in using the method in South Africa. In the South African context, villages are rarely tightly knit communities, but sprawling areas with several hundred, if not thousand households, with high mobility and differentiation. Wealth ranking relies on people's knowledge of each other - could this be applied in South Africa?

Mapping

We started the task by mapping the village (on the floor of a church, using chalk) with about 30 people who arrived for an introductory meeting. After some discussion, it was agreed that people should divide themselves into groups according to the section[4] where they lived in the village. Initially three sections were formed, and the participants easily grasped the concept of mapping and began the task. Quickly it became apparent that there were 6 rather than 3 sections in the village. Some sections were under-represented in the meeting, and there was some difficulty experienced by these sections in drawing the map. Some participants therefore left to find people from the other sections to join in. Obtaining good representation from all sections of the village is critical to the successful mapping of a large village (see Box 1).

[3] Full details can be found in a forthcoming article in The Small Enterprise Development Journal, or from the author. Poverty-targeting methods in microfinance will be debated at the Microcredit Summit meeting of Councils in June this year. SEF's operational manual for participatory wealth ranking is available from the Summit at a cost of US$10.00 - contact microcredit@igc.apc.org

[4] A 'section' is defined by participants according to recognised informal divisions of the village.

BOX 1
SCALING-UP OF PARTICIPATORY WEALTH RANKING

The key learning in the application of mapping and wealth ranking in communities of such size is to break the task down into manageable sizes. A community of 6000 people is difficult to imagine (or to live in) without its sections, in the same way as a town is defined by neighbourhoods. It is therefore a straight forward matter to ask people to map and rank according to their well known sections. This immediately breaks both the mapping and ranking into manageable sizes. We also find that people's knowledge of the households living in their own section is generally very good.

Mapping proceeded easily (and noisily), and within three hours we had mapped and listed the names of 736 households. More importantly, by generating six rather than three sections, the number of households which had to be ranked per section was more or less 100 (approximately the sort of number of cards people can sort before becoming tired). Participants assisted with writing a list of household names (the facilitators checking that these were the names commonly used), copying these names onto cards and making a copy of the map onto flip chart paper (see Boxes 2 and 3).

The mapping was a great success, amazing the Small Enterprise Foundation staff (used to the idea that a map must be drawn by the field worker), and leaving me surprised and relieved

BOX 2
FACILITATION OF MAPPING

The handing over of tasks to the participants is essential to enable the facilitators to monitor and facilitate, rather than attempting to undertake three time-consuming tasks in each section. These tasks are copying the map onto paper, writing up the household list and writing out the cards. Provided one or two people can write, the group can do the three things at once and thus save a lot of time.

BOX 3
CHECKING THE ACCURACY OF THE MAPPING

There is a danger, when mapping large villages, that households will be forgotten, or areas missed off. It is important for the facilitator to ask participants to check for this. In our experience, however, people are seldom missed off, or if they are, then they are quickly identified in the first card-sorting and can be added.

that there were no problems in identifying and naming all of the households. In one section for example, six people managed to map and name 211 households. The map was compared with one previously done by the Small Enterprise Foundation under the visual indicators of poverty system and its accuracy was confirmed. Further experience of mapping even larger villages has shown that even 1000 households can be mapped and the names listed in 2-3 hours, provided there is good representation from all sections of the village.

Ranking

The next challenge was how to rank the 736 households. Ranking involves discussing concepts of poverty and wealth, so as to stimulate thinking and to gain a consensus for ranking. The cards are discussed in turn and then sorted into different piles depending on the wealth of the household. Reference groups of 4-6 people are set up during the mapping. These groups meet with the facilitator and rank the households in their section. The ranking is repeated for at least three different reference groups so as to ensure triangulation and consistency of the results. The process is time consuming and strenuous, and once people become tired, accuracy is rapidly lost. Thus attempting to sort more than 100 cards (ideally much less) is problematic.

Division of the village into sections achieved part of the solution - however one section numbered over 200 households. The card sorting therefore had to be carefully monitored so as to stop the process when participants became tired. In this case, where the sorting is not completed, the unsorted cards are kept separate and used as the first cards in the next reference group. In the case of a very large section, the section is divided into two for each

Source: PLA Notes (1999), Issue 34, pp.4–8, IIED London

ranking (the cards being divided randomly) and each half is treated separately. At the end of each session, all cards are carefully mixed so as to ensure that each reference group receives a mixture of cards.

· Analysis of the results

At the end of each reference group, the piles of cards are scored. Scoring is calculated according to the number of piles used by participants, using the formula:

100/(number of piles) x pile number

For example if there are four piles, then the poorest pile (number 4) will score 100 (100/4 x 4 = 100) and the richest pile will score 25 (100/4 x 1 = 25). After three rankings the scores for each household are averaged.

Criteria have been developed for defining 'consistent' results (see Box 4). Initially this was done in a logical way based on the situation where there are four piles, so that if two households are within an averaged score of 25 they are effectively in the same pile (consistent); if the difference in two scores is between 25 and 49 they are in piles next to each other (inconsistent, but within the same half); and if they are 50 or more apart they are in different halves of the ranking. Use of this definition has proved to make practical sense in the ranking exercises, and can be shown to be statistically significant[5].

If the differences in scores for a single household are more than 25, this is inconsistent, but may still be used. If the difference is 50 or greater, this is a gross inconsistency and may not be used, and more information is needed. If the total number of gross inconsistencies is 10 or more per cent of households ranked, then additional reference groups are added, up to a maximum of five. Where the number of reference groups approaches five, it becomes difficult to achieve results to the desired level of consistency - beyond five reference groups it would probably be impossible, and the ranking would have to be abandoned.

At the end of the ranking there will always be a certain number of households for which consistent results were not obtained. Often these can be placed by the coordinator and facilitator, using the notes made about households where the reference group has a long discussion or has problems placing the card.

> BOX 4
> **ACHIEVING CONSISTENCY BETWEEN REFERENCE GROUPS**
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> Our experience has shown that consistency is almost entirely dependant on good facilitation. Facilitators must ensure that the initial discussion allows participants to think clearly about how they define poverty; clarifications concerning the process at the beginning help the participants to understand how to sort the cards and differences of opinion are raised early on. The creation of a relaxed and open environment is also essential to the process and a core facilitation task. Our best facilitators achieved close to 100 % consistency between three reference groups. We have used their skills to refine our training to a point that a fourth reference group is seldom needed.

· Issues in the use of participatory wealth ranking

Using the findings for selecting the poor

There is a danger that dividing up villages may make it difficult to compare the results between sections. It is very common to find concentrations of wealth or poverty within a village, which mean that sections have different wealth levels. Consistency between the sections is achieved by triangulating two methods.

1) *Ranking of the village sections:* during the mapping exercise, a simple ranking exercise is performed with representatives from the village structures (i.e. the local government, civic committee and traditional authorities). Participants are asked to rank each section on a scale of one to five, with five being the richest. This gives a good indication of the relative wealth of each section.

2) *Comparing results within and between villages:* wealth ranking is by definition subjective. But by looking at the

[5] Using Kendall's W and standard error tests.

Source: PLA Notes (1999), Issue 34, pp.4–8, IIED London

information generated during the ranking, an understanding of the characteristics of different levels of poverty is generated. In our experience, this is consistent within a single village, and in broad terms, very similar within the entire area where we are working.

Households from two different sections but with different scores may actually be at the same poverty level. For example, the characteristics of a household in one section with an average ranking score of 85 may be the same as one with an average score of 73 in another section. The qualitative understanding of how people define poverty (as gained during the ranking exercise) is thus used to achieve consistency between sections.

The Tshomisano project aims to work with the poorest people in the Province. Defining the cut-off point for inclusion in the project is always going to be arbitrary. The decision on who can or cannot be included in the programme - i.e. the absolute cut-off point - is based on an understanding of the poverty levels as they are described. In our experience, there is a fairly clear line drawn between those who are poor but get by (not included in the project) and those who fail to meet their basic needs (who are included).

High consistency between villages has allowed Tshomisano to use information given from a number of different rankings to define common characteristics of the very poor - our target group. During each ranking, much information is given about why people are sorted into each group and therefore the common characteristics for each pile. By using the generalised list, it is possible to select those piles which correspond to the target population, and the cut off point is drawn at this level, rather than at an arbitrary point.

Numbers of people qualifying in each section are cross-checked with the ranking of the different sections in terms of their wealth. To date there has been a good correlation between the poorest sections having the highest number of people qualifying.

Working with the people identified by participatory wealth ranking

The use of participatory wealth ranking has improved the relationship of Tshomisano with the communities in which it works. In the past, using visual targeting, initial contact was fairly secretive, with field workers moving around the village mapping and assessing each house. After this there would be a period of motivating qualifying households, with field workers visiting and encouraging people to join the project. Lack of community participation in the selection process, combined with the inherent weaknesses in the system, meant that there were many cases of dissatisfaction. There were many reports of women begging the field workers to come inside their homes to see for themselves that, although the house was good on the outside, there was nothing inside. It was this pressure that led to staff dissatisfaction and the initial piloting of participatory wealth ranking.

The participatory wealth ranking process is open and transparent and generates discussion and activity within the community. We have found that rather than having to motivate people to join, people are waiting to hear the results and hoping to join. Discussions with members following the participatory wealth ranking process demonstrate a high level of understanding of the process and satisfaction with the results.

It has been a difficult process to develop the method so that it can be operationalised on a wide scale in such large communities, whilst maintaining the quality and fundamentals of the approach. However, the result is an effective (and cost-effective) targeting process which is understood both by staff and members. The learning process continues, and the method continues to be refined, with small changes being made every few weeks.

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