7

Some observations on wealth ranking after an RRA looking at soil fertility management in Northeastern Zimbabwe

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In a recent RRA in Mutoko communal area, Mashonaland East, Grandin's (1988) wealth ranking technique was used by a multidisciplinary team to elicit a stratification of households in two villages. The focus of the study was farmers' use of different techniques for soil fertility management. The first part of this article looks in hindsight at the usefulness of wealth ranking for this and other applications in the field of natural resource management. The second part of the article details some errors we made with the technique in one of the villages where we worked.

• The wealth ranking exercise

The objective of wealth ranking was to achieve a stratification of households in Charewa and Tarehwa based on general economic well-being, so that the team could then examine each stratum for differences in access to and management of resources for soil fertility maintenance. The first week of fieldwork coincided with the National Population Census, and official lists of heads of households in each VIDCO from the pre-census lists compiled in June 1992 were kindly provided by census officials. These lists had some inaccuracies and required considerable verification and amendments during the exercise.

Verification and ranking of households was done with three small groups of informants rather than with individuals as Grandin (1988) suggests. We had asked for volunteers after explaining the objectives of the exercise at a village meeting. We received many more volunteers than we had asked for, and decided to try ranking in groups so as not to have to turn people away. As it happened this worked out rather fortuitously, because we were able to use the groups to verify the list of households prior to ranking. Households that nobody recognised were discarded, whilst participants added a number of households that had been omitted.

The participants divided themselves into three groups. The first (Group A) consisted of two respondents, a married man in his twenties, and one in his fifties. Group B consisted of a widow in her forties, a prominent married man in his fifties, and a young married man in his twenties. Group C consisted of an old woman in her sixties, a middle aged woman, a young unmarried man, a widower in his fifties and a prominent married man in his fifties. Prior to ranking, each group was briefed separately on the nature of the team's research on soil fertility, and on the value of information about the different problems faced by wealthy and poor people.

Household names were written on three pieces of paper, one for each group. In Group A, a team member read the names out, but in the others the informants took control. One member of Group B helped to explain the exercise to members of Group C when some confusion arose (it should be pointed out that, although the three groups did the exercise simultaneously, there was no discussion of ranking between groups). The different informant group sizes allowed some useful comparisons; whilst the smallest group was fastest, the two larger groups came up with a similar, and larger, number of wealth strata. The larger groups spent more time discussing each household. After sorting households into ranked piles, each group described differences between their piles, or strata, in terms of

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wealth and specifically in soil management techniques.

Table 1. Comparison of criteria used to distinguish between wealth strata amongst the three groups of informants

Group A	Group B	Group C
1. Have money for all necessary purchases eg. Fertilizers, seeds. Have cattle, a house in Harare and Mutoko.	1. have cattle, a house in Harare and Mutoko. Use inorganic fertilizers. Winter plough.	1. Head in Harare. Cattle. Manure. Fertilizers. Contour ridges prepared.
2. Have cattle. Practice 'good' farming methods. Husbands resident in Mutoko. Use manure, inorg. ferts and litter	2. Have cattle. Husband lives in Mutoko. Use munure, inorganic fertilizers. Winter plough.	2. No family member working away. Use manure. Contour ridges prepared.
	3. Old people with cattle. Remittances from children. Use manure but need help to apply it.	
	4. Husband in Harare, but doesn't provide enough for family. No cattle. Lack of manure, fertilizers.	3. Member of household working away. No cattle. No manure. Purchase of fertilizers is not sufficient.
		4. Have cattle. Lack knowledge. Contour ridges prepared. May sell manure.
		5. Have cattle. Get low yields. Not good farmers. No fertility management.
3. No cattle. No inorganic fertilizers. Use leaf litter. Winter plough stover.	5. Husband in rural areas. No cattle, usually no manure.	6. No cattle or manure. Men do casual local labouring. May purchase fertilizers.
4. Poorest. Widows and handicapped. No livestock. Use leaf litter.	6. Widows. No cattle, implements. Little or no soil management.	7. No cattle. Widows and widowers. Use compost and stover. Maintain contour ridges.
	7. Handicapped. No soil management.	8. Invalids. No soil management.

Table 2. Some characteristics of households interviewed in Charewa 2

Stratum	No. of households	Average no. of adults	Livestock on farm	Average number of cattle	% with garden	% using inorganic fertilizers 1991/92
I and II	4	2.5	C,G,Ch,P	7.0	100	100
III	6	4	C,G,Ch,P	4.17	83	100
IV	5	4[2]	C,G	1.2	80	75
V	3	?[3]	P[4]	0.3	100	0
VI	4	2	-[5]	0	25	0

[1] C: cattle: G: goats; CH: chickens; P: pigs
[2] Data for our households only
[3] Only recorded for one household
[4] One household had only one cow, two goats and a few chickens
[5] Only one household had a goat, another had a few chickens

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Group A identified four wealth strata, Group B identified seven strata, and Group C eight strata. Table 1 is a simplification of the criteria they used to distinguish strata and an attempt by the authors to match criteria across the three informant groups.

Average rank scores were calculated and the households divided into six strata using the method suggested by Grandin (1988). From the average rank scores we found that there was general agreement on households in the wealthiest and poorest groups. The former consisted of households with cattle where the husband worked on the farm. The poorest group consisted of widows and the disabled. A small number of households were ranked as rich by one informant group and poor by the others (although this could have been a result of confusion about whether the group represented richest or poorest at some stage in the exercise).

The distinguishing characteristics of households in the middle strata were less clear. There was a significant amount of variation amongst the rankings of these households. This may have been due to variations in their situations over time, for example in the numbers of cattle held, or presence or absence of the husband, wife or older children. The nutritional status of the family was an important criterion that distinguished households in the three wealthiest strata for informants in Group B.

• **Discussion**

The differences identified between groups of farmers were very useful for the study because they indicated the sorts of differences in the community that local people felt had an influence on soil fertility management. The accuracy of the stratification is demonstrated by some of the results of ensuing interviews with 22 households selected at random from the six different strata computed from average rank scores (the total number of households was approximately 100). Table 2 gives details of household size, livestock, use of inorganic fertilizers and access to dambo gardens amongst those interviewed. Cattle holding was the clearest manifestation of wealth in the criteria described by respondents to differentiate between strata. The importance of

cash income was implied for the wealthiest groups, although there were only two direct references to cash income amongst the criteria. Land-holding was probably implicit as a criterion in the ranking, yet it is not clear why this was not mentioned.

The stratification provided a useful framework for further interviews. However, these raised more questions about what characteristics people considered when discussing wealth. For example, the criteria elicited to distinguish between households (Table 1) focused on visible wealth such as housing and livestock, but ignored atypical sources of income (one respondent received income for prophesying at apostolic gatherings). In a few cases we found that support from wealthier kin was overestimated, resulting in higher rankings for younger households which simply did not have the resources of older households in the same strata. In an opposite sense, we came across three cases where individuals, two widows and a widower, were ranked in the lowest strata when clearly they were considerably better-off in terms of food and income security than their counterparts. All three were somewhat distinctive in that they all had strong personalities, emphasized traditional, well-tried, soil and crop management techniques, and tended to do their own thing, often different from other people's practices or views. A further problem was that the rankings appeared to ignore recent drastic changes in livelihood or status, especially widowhood. This might mean loss of livestock and access to a dambo garden for a woman, and certainly difficulties in acquiring sufficient labour for soil and crop management or a reduced cash income.

After the exercise one observer commented on what he saw as an undue emphasis on wealth differences. Certainly differences in wealth did not explain all the differences in practices which we observed amongst the households interviewed in depth. The three individuals listed above, each adhering to long-tried techniques, were a case in point. We might have used other criteria by which to stratify households, such as knowledge or labour availability. Nevertheless, given that this would have required considerably more time to explore, we feel that the framework provided by wealth ranking gave us a good

start. Our detailed findings from households, reported elsewhere (Carter, et al 1993) raised a set of much more informed questions about soil fertility management that now need to be pursued in greater depth and over a longer time period.

In presenting our findings to local people at the end of the exercise, we chose not to emphasize the differences in wealth, but rather the diversity of situations we had found amongst the households we had interviewed. The wealth differences were clear enough to our respondents. Research that tries to assist people to increase the quality of their resource base needs to build on common problems and similarities in people's situations. A focus on the problems of people without livestock, might generate new management alternatives useful to all. The reverse, a focus on livestock holders, has dominated research on soil fertility in Zimbabwe to date, and has failed to address the situations of a significant number of households.

• **Wealth ranking gone wrong**

Having had a successful wealth ranking session in Charewa, we decided to do another in Tarehwa. Two groups of informants were identified by members of the team, and agreed to do the exercise. This worked quite well, but at least three sets of scores are necessary to give a reasonable average, and some team members had to return later to identify more informants. Two teams of two and three returned to Tarehwa, in the hope of finding informants on an opportunistic basis to do the wealth ranking there and then.

We stopped at a homestead by the roadside where three old men were having a chat. One immediately left. We explained to the others that we were interested in how people here maintained soil fertility, that we had been in the village for a while, had held some meetings with villagers and walked across the valley with some of them. We were now interested in interviewing individual farmers in order to gain an in-depth understanding of how different people managed their soils. Before we could select individuals to interview we needed these two gentlemen's help to divide villagers into groups of people with similar resources for and problems of soil management.

The two old men looked at each other and mumbled something to the effect that they would not know the wealth status of anybody but themselves. Despite repeated explanations that we needed the stratification in order to help us to select households to visit for individual interviews, they were unwilling to cooperate. We began to think that perhaps they were unwilling to do the exercise together. We then politely asked one to leave, and remained with the owner of the household who then agreed to help us.

We showed him the cards containing the list of villagers and asked whether he wanted to read them himself or whether he wanted us to read out the names. He opted for the latter. We explained how he should place households into piles according to similarities and differences in their wealth. However, the old man claimed not to know, or not to know enough about half of the households in the pile. He put those he did know (about thirty-five) into ten classes. Three of these had only one household in them.

We then asked him to rank the classes in order of wealth. This he totally refused to do. He said that we had asked him to group people into categories depending on their resources. This he had already done. The ranking of the classes was for us to do!

With only half of the village list classed, and with the classes not ranked by the informant, we could not use the results. We had wasted our time and that of the old man. We thanked him and reshuffled the cards. Before we left we asked if he knew anyone who could help us with the ranking, preferably someone who could recognise most or all of the households on the list. His answer was simple: "That's your job, isn't it?"

We wouldn't give up easily. We drove a short distance down the road and stopped at a garden. There was a friendly young woman who we had met at a village meeting a few days before, and had given her a lift to a grinding mill. She seemed like the perfect person to help us.

She was willing to spare us some of her time. We went over the same explanations that we had given the old man. She sounded more eager to participate than him. However, we decided to check first how many of the households listed on the cards she knew. We went over the list and discovered that she knew less than a quarter of those we read out. There was no point in going further. We asked her why she did not know many of the households and found out that she had married into this village only three or four years previously. By then she had become uneasy about the exercise, and repeatedly asked where we had got the list of households. We explained how we had got them, and told her again why we needed them.

This episode has a number of clear lessons. Firstly, prior arrangement with local people to do the wealth ranking reassures people, and helps to identify those willing to participate. The village meetings in Charewa were good opportunities to do this. Secondly, working with groups of informants was more productive than with individuals, simply because people were able to remind each other about households that they did not recognise (names on the cards were often incorrect) and together knew more about the circumstances of a larger number of households. Thirdly, it was more reassuring for people to work in a group; wealth is, after all, a sensitive topic. Nobody had previously done any research in either of the two villages, and we underestimated the length of time it would take to gain people's confidence.

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