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## Combining rapid appraisal with quantitative methods: an example from Mauritania

Robert Davis

### • Introduction

RRA and PRA developed, among other reasons, out of a frustration with traditional questionnaire surveys. However this paper illustrates that there are several ways in which these tools can improve the results, and the analysis of results, from such surveys. The example comes from a research project that contributed to my PhD. The research contained no development planning component and thus I am reluctant to call the research PRA because this implies the analysing of knowledge 'to plan and to act'.

However, I believe it can be referred to as RRA because it utilised tools commonly used in RRA (and in PRA too - see below) and because it was carried out in the spirit of RRA, it was:

*'essentially a process of learning about rural conditions in an intensive iterative and expeditious manner, using a range of methods, tools and techniques specifically selected to enhance understanding of rural conditions, with particular emphasis on tapping the knowledge of local inhabitants and combining that knowledge with modern scientific expertise'*

(Khon Kaen University 1987).

This definition describes very well the basic objective of my research and the way in which it was carried out.

Each village was provided with a copy of the RRA report, in both French and Arabic, summarising the key research findings. Even

though there was no explicit planning component, several of the communities involved did use the results to present themselves and their priorities to a variety of government and non-government agencies in Mauritania.

For example, one community used the results in on-going planning discussions with an international NGO. The results enabled the outside agency to understand a key local conflict and assist the villagers to expand a village gardening project. In another case a village used the findings to submit a proposal to several government agencies to expand income-generating activities. A third village submitted a copy of their village report to the US Embassy 'Self-Help' programme to seek funding for a gardening project. These activities all occurred on the initiative of the villages concerned.

### Studying risk management strategies

My PhD research was carried out in the Assaba region of Mauritania and described the exchange strategies that villagers use when faced with uncertainty. It analysed how these strategies have changed over time and evaluated current family living arrangements to see how migration and diversification of productive activities are used as risk management strategies.

To achieve these aims, I carried out RRA in six villages in the Assaba region (Phase 1) followed by a standardised survey which was administered to 450 households in the same region (Phase 2).

RRA was used in Phase 1 to address changes over time (even over short periods of five to

ten years) which cannot be adequately addressed in a cross-sectional survey. In addition to describing historical changes, the development of the survey would have been difficult without a clear understanding of indigenous terms and concepts. Furthermore the idea of exchange and diversification strategies may have been an outsider's construct (despite a broad literature suggesting the contrary). Thus, RRA helped me to develop a deeper understanding of the categories of strategies and indigenous terms.

Phase 2, on the other hand, was used to examine how widespread exchange practices are and to test specific hypotheses about how migration can influence the use of these exchanges throughout the region.

Six villages were selected to capture key differences in the region, including proximity to markets, differing tribal entities, ethnic differences and size of village. After a series of preliminary visits to the villages to negotiate the terms of the research project, a multi-disciplinary team of five people spent five to six days in each village. They carried out a range of activities and interviews with various groups and individuals. The tools used included: village maps, historical profiles, transects, consumption and historical matrices, Venn diagrams, wealth classification activities and a series of semi-structured interviews on village crises, conflict, migration and the development of village infrastructure.

The result of these short studies was very satisfying. By emphasising historical change (over the past 30 to 35 years), we were able to obtain rich descriptions of how the villagers' lives had been altered by droughts, the coming of democratic reforms and various development efforts such as roads, dams and wells. We were also able to confirm the importance of various exchange relationships and what goods and services flowed between the actors in such exchanges. We were able to understand villagers' attempts to diversify their productive strategies. The RRA process enabled us to build taxonomies of exchange

and productive activities and develop our vocabulary of indigenous terms. Even though I was the only non-Mauritanian on the team, all team members learned a variety of new terms to describe exchange.

Two examples illustrate how the RRA methods enabled us to develop a more meaningful survey. The first is found in Figure 1 and represents the results of a Venn diagram drawn on the ground in one village. This teaches us about the village's relationships with the outside world. More interestingly, it tells us the terms used to describe various internal exchanges that were found in the Venn diagrams in other villages.

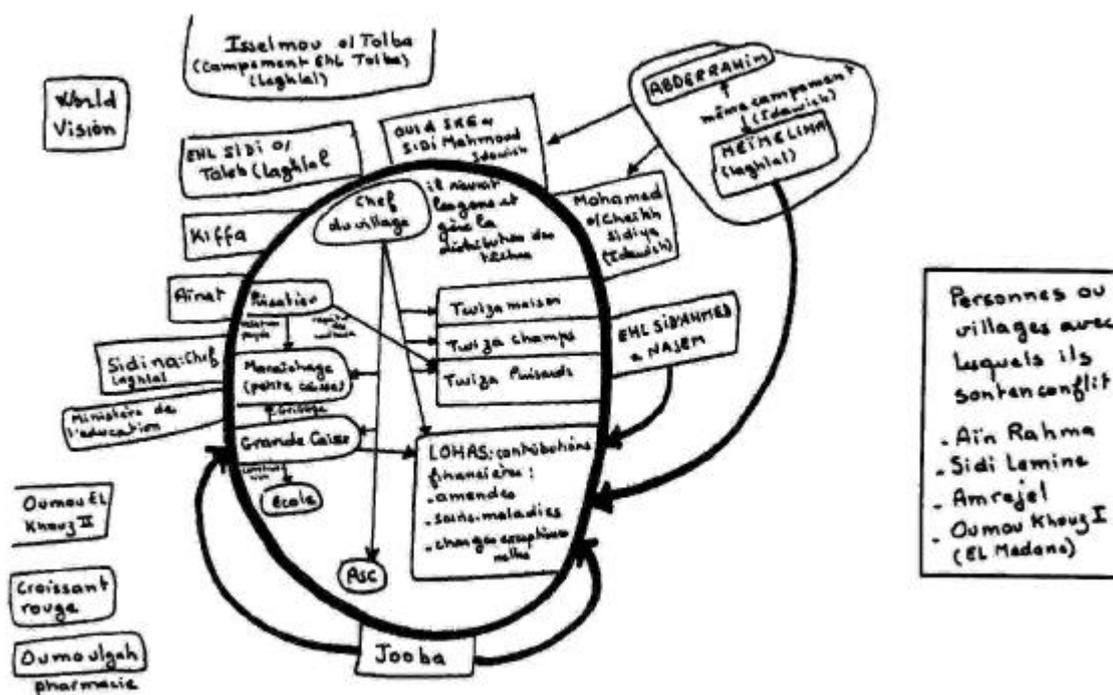
Even though most of the diagram has been translated into French for presentation purposes, the terms *loha* and *twiza* are found inside the circle. These terms represent key elements of a village's internal organisation. *Twiza* represents the physical labour that is provided by villagers to any household that requires much rapidly deployed labour to accomplish a task. We learned that a household's contribution to *twiza* assured it similar support if required in the future.

*Loha* is a similar concept in that a household's contribution to *loha* today allows it to benefit from *loha* in the future. *Loha* differs from *twiza* in that it concerns direct cash contributions instead of exchanged labour. *Loha* is central to the village health insurance coverage.

These two terms, and the variety of types of *twiza* and *loha*, enabled us to understand key elements of the exchange process. We were also able to use terms readily understood by the local population when we developed the survey.

A second example comes from an historical matrix which was carried out in one village. This was used to evaluate the relative importance and changes in the relative importance of the village's productive activities or "sources of life".

Figure 1. Venn diagram showing a village's relationships with the outside world. See text for a full explanation



The villagers defined key time periods in the life of the village and these were used in the matrix. We began by asking villagers to list their current sources of life. Using 100 counters, villagers placed them next to the 'sources', allocating more counters to those activities that were more important and less to those who were less important. After much discussion they agreed on a final tally.

We then asked them to think about the previous period and add any activities that existed previously but not in the present period. They then carried out the same tallying process until the activity was completed for each period. Besides generating much discussion and debate, an interesting profile of change in the village was developed.

The results were instrumental in developing the survey related to household activities. By carrying out this activity in all the villages we were able to develop a complete list of activities and have profiles on who would undertake specific activities in which seasons and the profitability of each.

The use of RRA enabled the team to develop a more adequate and context specific research

tool. The household-based survey, on the other hand, permitted us to 'get inside' households in a way that the RRA (as we used it) could not. Although we had attempted to describe household exchanges in the RRA techniques, we were unable to evaluate to what extent individual households engaged in these exchanges.

Our experience with RRA revealed that the unit of analysis is not the household but a kind of summary of 'typical' behaviour of different subsections of the community. As such, the village or village sub-group was the unit of analysis. This was not always a limitation because certain exchanges occur between villages and other outside entities.

However, preliminary evaluation of the survey results has shown that all of the exchanges that were evaluated at the community level are used in varying frequency by individual households. The survey thus provided more specific insights into household behaviour and, by extrapolation, the frequency of various exchanges in the community.

Taken together the two approaches complemented each other, with the results of

Phase 2 confirming that the categories identified in Phase 1 were representative of individual household behaviour. The great advantage of the RRA phase was its ability to deepen our description of risk management strategies and to evaluate change over time, things that no cross-sectional pre-coded survey can do.

## • Conclusion

This article demonstrates how rapid appraisal and more traditional survey methods can be used together. The tools of RRA can be used to inform and enhance the development of a standardised survey. They provide an opportunity to delve into much greater detail than any survey ever can. However, a survey provides greater detail on individual lives (or individual households) in a way that may not be possible in RRA methods as they are often carried out in larger groups.

Many surveys are bounded by time and are thus inadequate to explore the 'story' of a group as it has evolved over time. To evaluate how the current state of affairs has come to be, an RRA approach can be quite powerful. RRA can also improve the validity of information gained in standardised surveys by helping those formulating the questions to phrase them using locally meaningful terms and language. The advantage of a survey is that the results can be analysed statistically and, if sufficient caution is practised, scaled up.

RRA gives a voice to people, in a way that no survey can. By providing a forum in which time is not a constraint, many opinions can be heard and evaluated. RRA thus helps outsiders understand the language and terms of the

community. On the other hand a survey, if used correctly, can help a community to evaluate how it compares with others in similar circumstances as its results can be integrated with those of a larger sample. By combining the two approaches, there is thus an opportunity to explore the inside of a community and how its experience compares to the 'outside' world.

• **Robert Davis**, 328 East Ross Street, Lancaster, PA 17602, USA.

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## REFERENCE

Khon Kaen University (1987), Proceedings of the 1985 International Conference on Rapid Rural Appraisal. Khon Kaen, Thailand: Rural Systems Research and Farming Systems Research Projects.