

## 9 Conclusions regarding the use and validation of TORA

Conclusions Regarding the 'Application of the Theory of Reasoned Action' to the Development and Targeting of Fuel Wood Management Extension Activities in Northern Ghana

### 9.1 Application of the TORA

*“The theory of reasoned action is perhaps one of the most accepted explanations of social behaviour. As such it has formed the basis for studies throughout the last decade. It has been used extensively in Marketing, Environment, Health in the North. K McKemey was one of the first to use the tool in environmental concerns in developing countries - environmental behavioural concerns in a buffer zone of forests in Central America.*

*However, this project (R6849) is perhaps the first time that the TORA has been used as the foundation for a rapid assessment tool for aid and development interventions in Africa (and the Third World). Although the project has as its focus domestic energy, the environment and displaced people in Ghana, the purpose of the project was to demonstrate the use of a rapid assessment tool that has wide ranging application. Since this is the purpose of the project it is important to evaluate how the tool has been used.” Batchelor, McKemey & Dawson 1999*

The first projects report emphasised that the TORA as an assessment tool must be targeted to a specific behaviour or set of behaviours. One cannot just use to methodology to investigate the general life of a people or community. The tool is best used when a behaviour is identified and there is a need for persuasive extension. In the combined projects (R6849 and R7843), information from agencies working with energy saving strategies indicated that there had been little uptake of improved stoves and planting of woodlots. There was therefore a general need to investigate the internal motivation concerning these and related behaviours.

The TORA process involved a series of open ended interviews on the general subject of energy use, a second more formal survey and analysis. The initial processes are iterative. The first interviews draw out statements from the respondents, and these statements are noted for their content and frequency of expression. The subject matter of these related beliefs gradually provides a basic structure to the later interviews. The first project found that it was relatively simple for the core consultants to explain to extension field staff the purpose of the interviews. After two days of briefing and conducting interviews as a mixed team of expatriate consultants and extension agents, the latter were able to work on subsequent days in mini teams on their own. Daily debriefing is required to ensure that the framework evolves as a whole, and to exchange innovative questions that bring out unexpected answers.

The second survey is a questionnaire. The structure of the questionnaire is:-

- key behaviours relating to the behaviour set
- intention statements
- attitude statements
- belief and evaluative statements
- social referents

The attitudinal group of questions (belief and evaluative) are the majority of the questions. Statements are presented based on 85% of all the statements emitted by more than one respondent in the first survey. For each feedback of these statements, the second survey respondent must score their belief of the statement on a bipolar scale (-2 to +2), and the value they place on the statement. Is the belief based on whether (in their opinion) the statement is true or false, and also whether it is good or bad. The structure of the questionnaire is quite critical to the process. The statements must be phrased to elicit both positive and negative responses.

The project seems to indicate that the construction of the questionnaire is a specialist job. The questionnaire was formed by the key members of the team. The Ghanaian counterparts were actively involved, and were particularly required to clarify the statements in terms of local culture and local language. It would be difficult for a team made up of entirely outsiders to create a questionnaire for a people group. The project experience is that the construction of the questionnaire requires a team consisting of both specialists and (Graduate level) local counterparts. The questionnaire can be applied by field agents familiar with the people group. Three days training was required to ensure sufficient quality in the questioning technique.

A half day was used to explain the concepts and purpose of the process. A day was taken to work through the whole questionnaire discussing each question and verifying them with the team of interviewers. This process acted as a means of local verification of the document. The interviewers were representative of the local community and had many years experience of working as extensionists in the area. The adjusted questionnaire was then piloted with each interviewer carrying out 4 surveys (total 48). The findings of this pilot were then discussed and further refinements made regarding issues that were found difficult. Teams were made up of local extension agents with a local supervisor for every 4 agents. There was no need for expatriate members of the team to be on site for the survey.

The analysis of the survey is achieved by using computer software to statistically correlate the various permutations. Although the theory has been around for many years, it is the advance of computer technology that has made it possible to use the TORA as a rapid assessment tool. Manual calculation of the statistical correlations would have been far too time consuming to make the tool practical. The project used SPSS software to handle the data and provide macro tables for interpretation.

In practice it was difficult to decide the cut off point for the data collected. Even with the assistance of the latest SPSS software, to analyse all the data would have taken the project over budget and timescale. Of the seven behaviours, a preliminary analysis identified three behaviours as the most critical. The data for the three behaviours were analysed in detail. If only three behaviours had been chosen from the start it is possible that without actually gathering the data and making a preliminary analysis, it might not have been possible to see the cross cutting themes. By gathering data for all seven behaviours the team were able to clearly identify the important behaviours.

The analysis was undertaken by the core team of the project. This is a specialist task and had to be undertaken by those familiar with the TORA theory.

From the experience gained it was determined that:-

- the rapid assessment tool will need a specialist team leader to guide the whole process
- given a general professional background in sociology or social-psychology a person may gain a working understanding of the tool in a relatively short time period
- it is envisaged that a Relief or Development GO or NGO could either have an inhouse specialist or hire in the skills as and when the tool is required
- most of the field work can be carried out by relief and development workers already on site.
- a usual mix of supervisors and field agents (enumerators) is required as per any survey of this nature.

Given the availability of a specialist, project R6849 concluded that the tool was practical and yielded the required outcome. It is a tool that should be used to gain a broad understanding of the target population particularly for identifying issues that may block acceptance of interventions. It gives clear direction regarding both the focusing and channelling of educational interventions so as to reduce cost and time where these resources are limited. Time in refugee situations is particularly limited and this tool can have a significant effect on planning.

Project 7843 took the insights of R6849 and developed them up to extension messages that the agents in Northern Ghana could apply. The project was constrained by minimal budgets to assist extension work and proceeded on the assumption that if the insights shown by the TORA were of sufficient value that the extension services of Northern Ghana would be willing to adopt them within their own ongoing budgets.

This was proven to be a correct assumption and this report relates mainly to a period of 18 months when extension services applied a relatively short period focussed extension which used the TORA results and stimulated behavioural change.

The application of the survey at the end of the project in order to determine the impact of the focussed extension was practically the same as the formal survey described above.

## **9.2 Relevance of the TORA**

The analysis from the first project revealed a number of interesting results. Comparison with reports such as UNHCR's "Energy strategy for refugee affected areas of Kagera, Kigoma regimes Tanzania" UNHCR 1997, or work by Black & Sessay in refugee usage of fuelwood within Senegal (1997), shows that the method had captured the majority of the key items normally discussed regarding fuel for displaced persons. The method has not only brought to the surface beliefs which strongly influence fuel use, but had given quantifiable statistics as to the strength of that belief. Typical participatory techniques allow the community to vocalise concerns. However the strength of these concerns is often only documented according to the vehemence with which they are presented. The subjective language of a group discussion gives only qualitative ideas as to strength of the belief. The value of the current method is its ability to put a quantitative figure on the strength of belief through a statistically valid sample of the general population.

The analysis revealed **why** people behave as they do. This stood in contrast to typical PRA tools that discuss the how, what, where, when and who of behaviour (in this case energy strategies). By discussing **why** people behave as they do, the tool has presented clear guidance for educational messages (and channels) that will contribute to changed behaviour. The analysis is not a substitute to survey and PRA tools, since there is still a need to know the physical data of energy strategies (fuelwood collection, wood consumption, etc). However, the TORA tool complements data gathered by other survey techniques.

The analysis showed how the internal and social motivation of people affected their behaviour (in this case of energy strategies in Northern Ghana). The resulting educational messages are not a substitute for policy and interventions. On their own they have a limited impact. The targeted educational messages prevent extension agents from delivering messages through inappropriate channels and with inappropriate content. However, the messages can only complement and enhance policy and intervention actions. If improved stoves are not made available, and seeds are not available for woodlots, if the economic conditions are not in favour of fuel optimisation, then the messages can have only limited impact.

The project R7843 attempted to prove the appropriateness and relevance of the messages suggested by R6849. From R7843 we can conclude that :-

## **9.3 Conclusions**

- The short period of the 'focused' extension intervention and the significant changes achieved in behaviour demonstrate the effectiveness of the 'Theory of Reasoned Action' (TORA) model in the identification of the critical issues influencing the decision making process.
- It enabled a more focused and therefore efficient extension intervention.
- The use of the (TORA) model in the Northern Ghana context has demonstrated an effective methodology for the identification of the most salient psychological barriers influencing the adoption of recommended 'natural resource management' practices.