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The use of RRA in conservation expeditions: experiences from Sierra Leone

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• Introduction

Northern conservation expeditions and surveys in the South often concentrate on recording rare species or habitat types using conventional ecological methods, ignoring both the resource of local peoples' ecological knowledge and the ecology of indigenous resource use. The result can often be that government bodies and conservation groups ignore the needs of local people when planning protected areas and that a less than accurate picture of local ecology is obtained.

In Sierra Leone, as part of a graduate expedition¹ to the Mount Loma Forest Reserve, we used RRA techniques to obtain information on local land use patterns and ecology from villagers living adjacent to the reserve. The Loma Forest Reserve is in the north-east of Sierra Leone and was designated as a protected area by the Forestry Department in 1951. The indigenous Kuranko people are prohibited from farming or hunting within the reserve boundaries. They grow rainfed rice in a bush fallow rotation system, supplemented by vegetables and cash crops grown in river swamps and tree crops grown within the forest. The Forestry Department regards the Kuranko's land use system as detrimental to wildlife and their habitats.

To make realistic conservation proposals, it was felt that a survey of Kuranko land use was vital. No such survey had previously been carried out. We decided to use RRA as we

wanted to obtain detailed information in two months and needed a flexible approach that would involve local people. We wanted to investigate:

- The distribution of habitat types in and around the reserve;
- Changes in land use and habitat distribution in villagers' lifetimes;
- The importance and source of non-agricultural resources;
- Sustainability of current land use practices and economic trends likely to affect them; and,
- Attitudes to the reserve and to conservation.

Preliminary visit

A reconnaissance survey was first carried out. Two days were spent selecting a study village (Sinkoro), making contact with chiefs and assessing logistics. We found this time to be extremely useful. After preliminary interviews with a few local people and village chiefs, we discarded some methods and objectives, decided which issues to concentrate on and drew up our initial question checklists. This survey also enabled us to find a Kuranko person able to translate our concepts as well as our speech into Kuranko. This was fundamentally important in our work, as was the fact that he was well known and respected in local villages.

Building trust

The Kuranko are extremely suspicious of outsiders. Their only previous contacts have been with white tourists passing through or Forestry department staff, whom they dislike.

¹ From the Department of Environmental Sciences, the University of East Anglia, UK. A report stating the initial findings of the expedition is available from the authors.

We were initially suspected of working for the government or of being connected with Liberian rebels. An initial explanation of our motives to a village meeting did much to help us, as did the fact that we lived in the village, used Kuranko greetings and participated in village activities.

Our interpreter was essential in this process as his explanation of our presence was trusted. We were eventually regarded as friends and had cooperation we would not have received had we merely visited for a few days. Work in neighbouring villages was also made easier as word spread that we were not trying to cause trouble.

• **RRA methodology: strengths and results**

The approach decided on was to spend several weeks studying Sinikoro combined with additional, quicker surveys of surrounding villages. The use of a range of methods made triangulation easier and consequently our results more reliable. Methods that were particularly useful are described below.

Mapping

Mapping was always the first activity to be carried out and was the reference point for all future work. A group of villagers, chosen by the chief, sketched a plan of the village and surrounding areas in the dust of a communal area, taking it in turns to 'use the stick'. We asked to be shown rivers, areas of farming, swamp gardens and vegetation types. This proved to be a quick and fairly accurate technique of land surveying. Strengths of the exercise included the following:

- We were able to dismiss our previous assumption that the forest reserve was an area of mature forest being eroded inwards. The vegetation pattern was a more complex mosaic of habitats;
- Mapping brought to our attention the existence of deserted villages within the reserve. These sites were later found to be of conservation importance;

- Disparities between our background data and the map were noted eg. river names, which prevented later confusion;
- Much discussion was generated about the reserve as a result of drawing the boundary;
- We were able to discard low priority information from our checklists eg., soil types, which are uniform around Loma; and,
- The map determined the transect routes.

Transects

Transects were carried out along farm tracks around the study villages, guided by a local farmer. These were intended to establish the limits of mature forest, permit an intensive study of the surrounding forest and allow observation of agricultural practices. Through questioning and observation we were able to note species indicative of disturbed and undisturbed forest which increased the effectiveness of the transects. Other advantages of using transects included:

- Discovering that villager classification of 'high' forest did not match ours. They included 15 to 20 year old secondary forest in their description of mature or primary forest. This saved confusion during interviews;
- Verifying and improving details on the map. For example, during one transect walk we discovered a large area of culturally protected forest outside the reserve that had not been included on the map; and,
- Using farm tracks meant we would meet several people during a walk which allowed for spontaneous interviews.

Ethnobotanical collection

We found that establishing a plant collection with the help of villagers was an effective participatory method of discovering medicinal and food uses. We asked villagers to bring us

samples of plants so that we could preserve them to identify later. We got a good response, and our contributors gave us thorough explanations of the plants' preparation and properties. Although not strictly an RRA technique, this produced far more discussion than checklists and ensured greater accuracy.

Other methods used during the study included oral histories (narrated by elders of three villages and which included their perceptions of vegetation change over time), short questionnaires, semi-structured interviews and group discussions. Of these, the semi-structured interviews produced the most detailed information on cropping systems, while the group discussions increased the accuracy of our conclusions by allowing for triangulation.

It was found that the Kuranko use a range of agro-forestry practices on land cleared primarily from 89 year old farm bush. This makes their agriculture sustainable at current population and technology levels. They also had a sound understanding of ecological processes occurring between forest and savanna areas, and sometimes manipulate savanna areas around their villages towards forest succession - an apparently recent innovation.

Reflections and lessons learned

- Mapping seemed to be an alien concept to the Kuranko. We had to prompt the exercise far more than we would have liked. Villagers' vegetation classifications are inevitably different to those of ecologists. Thus transects are vital to give a 'third dimension' to ecological zoning and land use mapping.
- As most people were busy in their farms when we visited, group events were arranged by chiefs. They were therefore biased towards the older male farmers. We also found group discussions difficult to operate. We felt it was due to our inexperience that they developed into question and answer sessions rather than debates.
- Women, despite our requests, were not included in mapping groups. All-female

discussions eventually drew a crowd of watching men who made disparaging comments about the women's ability to answer 'properly'.

- Not all the farmers were keen to complete the brief questionnaire and so the whole process was tedious for both interviewers and interviewees. The results were later found to be inaccurate, especially those relating to the ratio of bushels of rice planted to those harvested. An explanation could be that people were reluctant to reveal the extent of their wealth to others in the community.
- For longer visits, a reconnaissance visit is essential. Indeed an unannounced visit would have been seen as impolite and suspicious.
- Working through a local person greatly increased the amount of trust and cooperation received. However the pressure on them of mediating between their own people and strangers must be recognised.
- Although Robert Chambers² has emphasised the "*importance of being unimportant*" this was almost impossible in a situation where people had little experience of foreigners and so treated us as honoured guests. This was not negative as the interest we generated ensured greater cooperation and involvement.

• Application of RRA to conservation surveying

Conservation projects in the South would benefit from far greater cooperation with local people. The RRA approach enabled us to gain insights into local ecology, resource use and attitudes that a conventional expedition would not have obtained. We felt that the major value of RRA was in providing a quick yet thorough feel of the main processes occurring, rather than in providing figures to be acted upon.

Perhaps most importantly, RRA allowed the needs, attitudes and aspirations of local

² In Rural Development: Putting the Last First. 1983. Longman, London.

villagers to be given a voice in the context of future conservation objectives.

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