

Editorial

This special edition of RRA Notes comprises the proceedings of a recent two day RRA review Workshop, jointly organised by the Institute for Development Studies, Sussex, England and IIED, and held at IDS in June 1989. This was the second in a series, the first having been reported in RRA Notes 1. It was attended by some 35 participants from NGOs, universities and development assistance agencies.

The workshop was organised into two distinct sections. In the first a number of presentations were made of recent findings and new developments, covering the topics of Diagrams, Aerial Photographs, Interviewing and Groups, Ranking, Health, Participation as Theme, and Monitoring and Evaluation. Brief summaries of these presentations are reproduced here in Part One and readers wishing to receive full versions should write directly to the authors. Each of the seven sections was followed by plenary discussions: for the purposes of this report all have been relocated in the appropriate discussions that came after all the presentations. The second part of the workshop was conducted entirely in plenary after groups of participants had identified a list of issues crucial to the future of the field of RRA. The full discussion is reported in Part Two. Several points should be highlighted, particularly those relating to present limitations and future dangers:

- we must avoid RRA becoming the new orthodoxy - there is great danger in the kind of statements implying that RRA 'should be used wherever possible';
- we must not oversell RRA - beware of excessive faith. RRA could very quickly be killed by too much money and too rapid expansion;

- great care is required in training - good RRA is not easy, and requires close quality control and long follow-up;
- RRA may be quick, but the development process is still long;
- self-criticism of methodologies used should be rewarded - it adds greatly to the credibility of the work; and,
- focus on principles, not labels. The very diversity of RRA is its strength, it should not be pinned down, but be developed separately and according to individual institutional and locational needs and conditions. The principles and rationale should always shine through.

We would welcome comments of any length on these Notes, particularly on contentious points and key issues that may have remained untouched by the two day review.

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1

Diagrams

Jules Pretty, Ruth Alsop, Ueli Scheuermeier and Robert Leurs

• **Diagrams: General theory and practice**

What is a diagram?

A diagram is any simple, schematic device which presents information in a readily understandable form.

Which diagrams?

There are many types of useful diagrams, including maps, transects, seasonal calendars, historical profiles, decision trees, activity profiles, venn diagrams, histograms, graphs, bar diagrams, decision trees etc.

Why use diagrams?

- Diagrams can capture and present information which would be less precise, less clear, and much less succinct if expressed in words.
- Diagrams are shared information which can be checked, discussed and amended, thus they create consensus and facilitate communication between different people and disciplines.
- The constructors of diagrams must continually be asking questions during the process: these questions are more open-ended than in formal surveys.
- The act of constructing a diagram forces exploration of extremes in space (e.g. to the periphery of a village or community) and in time (e.g. unusual events within and years). Helps to discover surprising and unexpected.
- Helps in the development of interviews.

- Rural people understand, and can contribute to, diagrams.
- Illiterate people can understand diagrams.
- Sometimes a humbling experience when diagrams are shown to rural people and are found to require many changes.
- Drawing diagrams is fun.

Where and when to draw

- In the field: best on the ground or on large pieces of so that the diagram is shared with all; second best in notebook, because information is private.
- In the workshop: on large pieces of paper or on overhead transparencies.

How to draw

- Drawing diagrams is neither art nor technical drawing.
- Do not use a ruler: it encourages excessive and unnecessary care.
- If the diagram is too pretty then the constructors may be disinclined to change it when new information comes to light: never be afraid to scribble over something that is incorrect.
- Be bold, clear and quick.

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• Profiles and matrices

Resources and benefits profile

We know that communities are not homogenous groups of people. Likewise, households cannot be seen to be undifferentiated units. Technological innovation, or intervention causing change, will affect the rich and poor, the male and female, the old and young in different ways. Two key areas in which people and households are affected by change are in their access and control over (a) resources used in production, and (b) the benefits derived from production. Access is defined as the use of a resource, control is defined as the capacity ultimately to decide about the use of that resource. Diagrams I and II depict a way of recording this information. The activities noted in the left hand column were taken from a previously compiled Seasonal Calendar. The codes in the two right hand columns identify relationships of access and control both within and between households.

Decision making: matrices and trees

Decision making *is* a complex process. It can be thought of as having three stages, (i) Initiation of Discussion, (ii) Discussion, (iii) Execution of Decision. There may be one or more actors involved at anyone of these stages. Diagrams III and IV illustrate how to record this information using a matrix.

Once again these show how patterns within and between households can be understood and documented. This understanding has proved useful in uncovering some of the social and economic relationships surrounding productive activities that have been the focus of project work.

The 'three stage matrix' can also be used in conjunction with the familiar Decision Tree diagram. This to date has only been used to conceptualise flows of decisions or to present semi-aggregated information in a report. Diagram I gives an outline example of a model which identifies critical points at which decisions have to be made about a range of choices. In surveys in which this tool has been used the patterns of (a) paths that households take at any point, and (b) the actors involved in the decisions at that point have tended to vary according to the resource position of households.

TABLE I

RESOURCES PROFILE

Activity	Resources Used	Access	Control
eg. Growing Maize	Medium Land Drought Animals Labour (H&D)	MA MA MA/FA	VC LL MA

MA = Male Adult
FA = Female Adult
VC = Village Committee
LL = Landlord
C = Child

TABLE II

BENEFITS PROFILE

Activity	Benefits	Access	Control
Lowland Rice	Consumption	FA/MA/C	FA
MV Rice	Cash	MA	MA
Millet	Consumption	FA/MA/C	MA
	Beer	FA	MA

TABLE IV

Area/Subject	Initiation	Discussion	Execution
(Group 1) PADDY - MV	MA	MA/HL	HL
(Group 3) PADDY - MV (SC) - Local	LL/MA MA	MA/MAR MA/FA	MA MA
(Group 5) PADDY - Local	MA	MA/FA	FA/C

Decision Making : Three Different Patterns

MA = Male Adult
FA = Female Adult
C = Child
LL = Landlord
HL = Hired Labour

TABLE III

Area/Subject	Initiation	Discussion	Execution
Fetching Water	FA	MA/FA	MA
Pack	MA	-	MA
Buying Saddle	MA	-	MA
Buying Donkey	MA	MA/FA	MA

Decision Making Matrix

MA = Male Adult
FA = Female Adult

General note

These descriptions are very short. They do not describe original tools, rather adaptations of the work of other development practitioners. Additionally no comment is made on the power of the tools or of their use and abuse. What is presented is therefore a brief introduction to ways of recording information and an indication of a conceptual framework which gives rise to the questions of intra and inter household dynamics that the matrices structure.

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• Diagrams and cartoons

See RRA Notes No.6, pages 26-29, June 1989.

- **Ueli Scheuermeier**, Alexandraweg 34, 3006 Bern, Switzerland.

• Diagrams for training

We recently ran a course *in* project identification for local government officers *in* Nigeria, using the RRA philosophy, methodology and techniques. These techniques included diagrams such as maps, seasonal calendars, transects, historical profiles and impact diagrams.

Teaching

Course participants were shown an example of each of these diagrams, followed by a discussion of how to construct them and their usefulness in terms of project identification. Course participants divided into their respective village teams and interview pairings and constructed these diagrams on the basis of their knowledge of their own villages. Finally, participants presented their diagrams (prepared with marker pens on large cardboard sheets) in plenary and this occasion was filmed.

Unfortunately, we made the mistake of not asking them to tell us how they could make use of these diagrams for project identification purposes. Nevertheless, the participants thoroughly enjoyed the experience and were so proud of their diagrams that they took them home.

The uses of RRA techniques for project identification purposes

It was intended that the seasonal calendar should be used to indicate seasonal trends in activities and problems so that critical bottlenecks or times for project intervention could be identified.

The transect was used because we hoped that the problems and opportunities listed would correspond to possible agro-ecological project ideas.

The reason for including the historical profile was to highlight the nature, direction and pace of development in the village concerned, so that gaps within this pattern of development could be identified.

Although the primary purpose of the course was to improve project identification skills, the fieldwork was also used as an opportunity to get feedback from the villagers about various facilities and services provided there by local government and others. The impact diagram was therefore selected as a useful tool for structuring and presenting the analysis of these facilities and services.

Diagrams were selected from those available in the IIED Notes (1988) and the Khon Kaen Conference proceedings (1985), on the basis of their expected usefulness for project identification purposes.

As far as I know, these techniques have not yet been discussed specifically in terms of the project cycle before. I think that a discussion of when these and other RRA techniques could best be used in the project cycle and what kinds of operational information could be expected from them would constitute a useful development in the RRA literature or at least one which would interest me particularly.

The fieldwork

All the above mentioned diagrams took less than an hour to complete in the field. One or two individuals from each of the five village teams were assigned to complete one or two diagrams (not necessarily the same ones which they had chosen during the teaching week) with different groups of villagers which varied in size from two to more than a dozen people.

The historical profiles were done with a group of people that included some elders. Similarly, the transect was done with a group of farmers, while the impact diagram was done with people who were directly affected by the service or facility in question. The seasonal calendars, finally, were not done with a specialised group of villagers.

Although the trainers did not accompany the participants on these tasks, the reports show that none of the participants had understood the intended operational purpose of the diagrams.

In addition, many of the diagrams were skimpily filled out and others were treated more as pretty pictures than useful schematic devised. On the other hand, there was a wide range in terms of quality amongst the 30 participants.

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Aerial photographs

Peter Dewees and Robin Mearns

- **Aerial photography and household studies in Kenya**

Background

I have been working in Murang'a District in Kenya on problems of capital and labour utilization and their relationship to on-farm tree growing. Some of my research depends on the collection of land-use data for individual households. Aerial photography, coupled with ground truthing, seemed the best way to get this type of information. I also wanted to use photographs during household interviews as the focus of discussions about land-use practices and changes which have involved trees. I had been thinking that low-level aerial photography would have been ideal for providing high resolution images of smallholdings. Larger format approaches, particularly high altitude photography and satellite imagery, would have been ill-suited for household work because of their relatively poor resolution. They are best suited for identifying gross landform features and land-use characteristics.

I had originally planned to use what I had thought was an existing set of low-level aerial photographs of the study area which had been taken in 1985. Long after I had made a commitment to carry out research in Murang'a, it became clear that aerial photos would not be available. Even so, I thought I should at least try to get some photos taken of the study area. This note is intended to offer some guidance for others who might try to do the same thing. It was surprising how relatively inexpensive aerial photography could be (if the costs of early mistakes are excluded), although this may simply be a function of the Kenyan context, and may not be applicable elsewhere. with a little planning

though, I would think that aerial photographs could be taken and incorporated into many Rapid Appraisal types of exercises at relatively low cost.

The study area, Murang'a District, covers a wide range of agroecological zones. The altitude ranges from around 600 metres in the east to over 3,000 metres in the west, and the topography is made up of an extensive ridge/valley system. Rivers generally run from west to east. Land-use practices are especially variable, depending on the agroecological zone and altitude. The population density is similarly widely variable: on average, it is around 250 people per km, but in some areas is as many as 1,000 per km.

Taking the photos

A primary concern was that the photographs could be used for identifying specific and complete smallholdings on the ground. It was also concluded that sampling within a narrower agroclimatic range would be more appropriate than broad sampling across the district. Using earlier survey work which had been carried out in the area for guidance, the transitional tea/dairy and coffee/tea zone was chosen as the area to be photographed. This zone roughly follows the 1800 metre contour.

Topographic maps at a scale of 1:50,000 were used for planning flight lines. The 1800 metre contour was first outlined on these maps and then 15 east/west transects were drawn across the contour, at 2 km north/south intervals. By limiting the transects to 5 km in length (instead of the earlier 15 km), the study area was logistically far more manageable.

A Nikon FG camera with a 50mm lens was clamp-mounted out the open window of a Cessna 152 and pointed vertically. The clamp

was nothing special, and was picked up in a photo supply shop in the U.S. for around \$30.00. One had to make sure, of course, that it was tightly fixed to the plane's window frame. I tied a safety cord to the whole apparatus to keep from losing it all together.

Flying at an altitude of 2,000 feet above ground level allowed a photographic ground coverage of about 12 ha per photograph. Flying at a speed of about 80 knots and taking exposures at 7 second intervals gave photographs at a scale of around 1:12,000 with around 30 percent overlap. Enough photographs could be taken with a roll of 36 exposures to easily cover the 5 km transect. In all, it took about 10 hours of flying time to get a satisfactory set of photos.

There were a number of drawbacks. I tried to fly at a constant altitude which, on average, was around 2,000 feet above the ground. Without a means of determining the changing altitude above ground level and because the landscape changed quite dramatically over short stretches, the scale of the photographs varied between 1:10,000 and 1:15,000. I will have eventually to calibrate the photos from ground measurements. If some sort of sample were to be set up, the varying scale would introduce problems of error: the photographic coverage was greatest where the air-to-ground altitude was the greatest, introducing a bias toward the lower agroclimatic zones.

Other drawbacks were a function of the need to fly particularly accurate transects. There are a few major landmarks in Murang'a District to ease this task, and flying and photographing for lengthy periods of time was extremely exhausting. Even using 1:50,000 topographic maps, the regularity of some features of the landscape (particularly Murang'a's endless series of ridges and valleys) made it very difficult to get proper bearings.

Once a full set of satisfactory slides had been taken, ground locations were plotted on 1:50,000 topographic maps. The fine detail of the maps, and the good resolution of the low level photography enabled the plotting of ground locations to within less than 100 metres. The number of each photograph was marked at its corresponding location in the map. Working copies of the original

transparencies were prepared as colour print enlargements (5"x7") - a scale of about 1:2000.

Using the photos

To begin with, I have found the photos especially useful for thinking about different land-use processes, particularly those which would not be immediately evident from the ground. The spatial arrangement of the shamba becomes really clear from the air, and regular land-use patterns which are common amongst smallholdings stand out. For instance, most buildings are built close to the road. Arable crops are planted on the flattest land, while permanent crops are planted on more steeply sloping fields. Trees in woodlots are generally planted on the most steep sites. Particular trees are often left or planted in fields. Many smallholdings are demarcated with trees and hedges. Valley bottoms are riddled with small drainage canals, and these areas are intensively cultivated as well. Most of this I suppose seems to make a lot of intuitive sense, and that's where the photos are a tremendous help - in confirming what seems to make sense.

The photos also tend to reduce spatial biases which even the most intrepid field worker can encounter on the ground. There is a tendency, for instance, to walk along the contours and along the ridges where there are paths, rather than longitudinally from one ridge into a valley, across the river and to the next ridge. The photos enable one to identify specific features of land-use which are of interest, and then to find them on the ground. In this sense, the search through the photos for the extremes - the smallest holdings, the largest holdings, the most heavily tree-covered holdings, the most barren holdings, and so on - can be especially enlightening when one has a chance to interview farmers. By walking the photographed transect, one can prepare sketch maps of changing land-uses, and the agroclimatic features which have contributed to these changes. This process as well helps to identify holdings where land-uses do not seem to be intuitive (for instance, where someone has planted trees where you would expect them to plant coffee), and can help to identify how households respond to resource constraints.

In household interviews, people seem quite comfortable with interpreting the photos. There is seldom a perceptual gap, and the thought of looking down on a shamba seems quite natural. People in the area are generally literate and in many cases have seen aerial photos before. During the land tenure reform programmes of the early 1960s, aerial photos were used to identify and register consolidated land holdings. During household interviews, I have been using transparent sheets held over the photos, to mark out and record the boundaries of the holding, and to make a note of specific land-use practices which are of interest. Interviewing has been essential to identify which boundaries belong to whom because, although they are often well-marked, even since the early 1960s there has been some fragmentation as a result of inheritance and sale, and it is seldom evident from the photos whose boundaries are whose.

In some respects, the taking of aerial photographs poses a number of contradictions for Rapid Appraisal practitioners. It was not exactly cheap. It took time to get a good set of photos. It is about as hands-off as one could get. But coupled with a reasonable field technique and interviewing practices, I have found them to be invaluable; where field workers have the resources and the time to acquire photos, I think they could be especially useful.

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• **Aerial photographs in Rapid Land Resource Appraisal, Papua New Guinea**

Background

The Southern Highlands Rural Development Project (SHRDP) (1978-85) was a World Bank funded IRDP in Papua New Guinea with programme activities costed at over US\$30 million. In one of its study areas, Upper Mendi, the first part of a formal, FAO-type land evaluation was carried out by SHRDP to identify land mapping units (LMUs) as a basis for agricultural and rural development planning in the area. The next stage, never carried through, would have been to use this

physical inventory as the basis for classifying the LMUs according to their suitability for specific types of land use.

My objective was to evaluate this technical land resource inventory in terms of how farmers resident in the area used and valued their land resources: in short, to identify the social overlay on the physical resource base which governs who has access to what land. The fundamental unit of social organisation in the area is the clan. The study took 3 months in total (including archival work), based on 6 local clans. It occurred towards the end of the funding period of the SHRDP. In this brief summary I hope to show how aerial photographs were used alongside a range of both RRA and more conventional research methods.

RRA methods used

The following methods were all carried out in the field by a team of three:

- **walking clan boundaries** with clan elders, using aerial photos in the field for boundary mapping;
- **semi-structured interviewing** with groups of men and women, separately;
- **direct matrix ranking** of land resource preferences for particular types of land use (sweet potato cultivation, vegetable cultivation, pig foraging, collection of minor forest products e.g. karuka nuts), using both local names and LMUs (i.e. did the difference in the category used itself affect the ranking/criteria in any way?);
- **diagramming** of inter-clan linkages and land disputes;
- **story-telling and oral histories**; and,
- **local calendars**.

Complementarities between RRA and 'conventional' methods

There is an overlap between some of these techniques as 'RRA' and what are in effect more conventional anthropological approaches based on investigation of inter-clan linkages (taking anthropological literature based on local fieldwork as a point of departure) and oral history. Other methods included an agro-ecological survey using aerial photographs in a fairly conventional mapping procedure.

Aerial photography

The aerial photos were a major asset as a tool for use in the field as well as for the more conventional mapping and analysis stages in the field office. The photographs had been flown by the Office of Forests in 1982, and were high quality B&W 10" x 10" prints at an approximate scale of 1:4000. Their two main field uses can be summarised as follows:

- **as aids for mapping clan boundaries.**
Clan elders and others who took part in the extensive walks to map clan boundaries and indicate disputed land had little difficulty in using the hard copy B&W photographs themselves, orienting them as necessary in order to get their bearings, to point out features of interest. We used chinagraph pencils to draw directly onto the photos, double-checking with clan members as we went. Boundaries that separated continuous lands of neighbouring clans were walked twice, once each with groups from the two clans.
- **as a focus for discussion in interviews.**
When carrying out direct matrix ranking of crop varieties, etc., RRA practitioners have found it best to use actual seeds in the ranking exercise. With land resources this is more difficult! Although we had a 'topographical advantage' in the rugged highlands of PNG, and ensured that all such interviews were conducted on ridge-tops overlooking the areas of land in question, we also needed something more immediate for both interviewees and interviewers to use as a reference in distinguishing between land types. The aerial photos again proved to be invaluable for this purpose, as they did in discussions about land disputes (see below).

Clan linkages and access to valued land resources

The formerly flexible practice of 'multilocal residence' in the area has been steadily

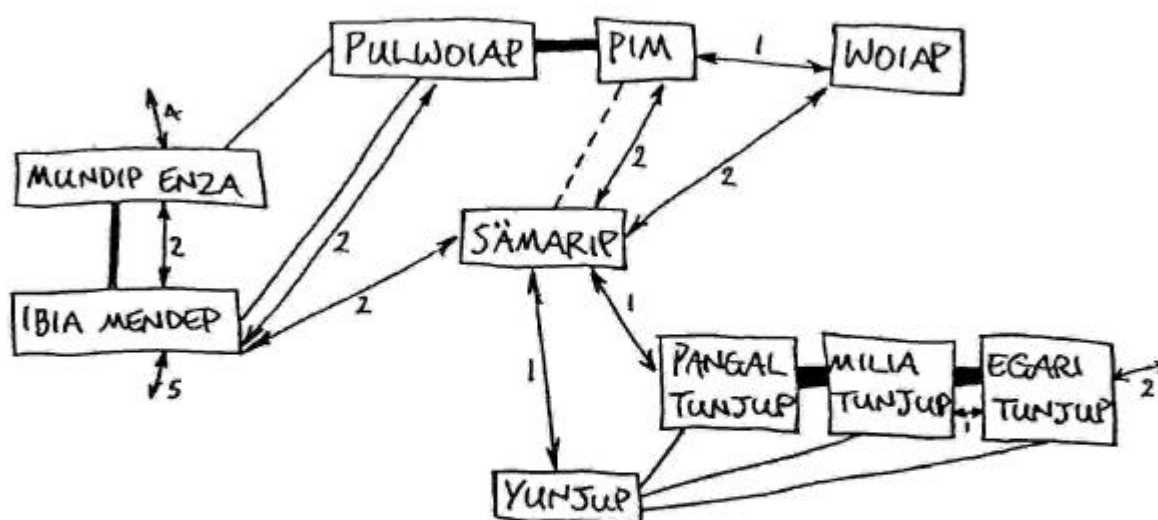
tightening up with the provision of rural services and great incentives and government requirements for people to stay in one place. Thus gardens are cropped much less frequently in areas further afield than a few hours' walk than they would have been a decade or two ago. This means that clans are more constrained by the land resources they customarily own in the immediate locality.

For clans without sufficient land of particularly valued types, in relation to their existing endowments, the major form of access to the land they need is through their ability to exploit the linkages they may have with neighbouring clans. These linkages take different forms and are constantly changing. For those clans without sufficiently strong linkages with nearby clans, it is hypothesised, disputes over particular parcels of land are more likely to occur. This hypothesis was formed during the course of discussions with members of local clans, when the nature of the linkages was 'triangulated' by asking each clan about all the others.




The diagram below attempts to represent in stylised form the linkages between the clans (the bolder the line, the stronger the links) and the rate of incidence of land disputes between 1977 and 1985 (from the District Land Disputes Register and verified in group discussion in the field). In the broad view it does appear to show that the incidence of disputes *is* low between clans that are more strongly linked, and high between clans with relatively few links with neighbouring clans (e.g. Samarip clan). Thus the extent of land disputes may be used as a rough secondary indicator of problems in access to valued land resources at the clan level.

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INTER-CLAN LINKAGES & LAND DISPUTES
BETWEEN UPPER MENDI CLANS, PNG



KEY




 } INTER-CLAN LINKAGES (BOLDER LINE MEANS 'STRONGER' LINK)


 LAND DISPUTES (NUMBER, 1977-85)

3

Interviews and groups

Howard Jones, Anne Floquet, Ian Scoones and Robert Leurs

- **The use of RRA interview schedules within a collaborative research project in Northern Thailand**

The research project described in these notes is entitled 'The role of Rural Peoples' Organisations in agricultural development in Northern Thailand'. It is a collaborative research project involving the AERDD, University of Reading and the Department of Agricultural Extension, University of Chiang Mai (CMU). Phase I was concerned with identifying the range and characteristics of Rural Peoples' Organisations (RPOs) in Northern Thailand. The research methodology of this phase of the work revolved round the use of conventional survey questionnaires to provide a census of RPOs in the nine Provinces of this part of Thailand. Phase II of the research project centres round eight 'case studies' designed and implemented by four separate teams of staff. Each team comprises both AERDD and CMU staff. The two case studies with which I have been involved have been concerned with a comparative analysis of 'successful' and 'unsuccessful' Paddy Farmer Groups (PFGs) in the Provinces of Nan and Lampoon. The rest of these notes explain how for this stage of the research an RRA approach evolved and the coverage of the Interview Schedules. An assessment of the use of these Interview Schedules will be given separately.

I did not go to Northern Thailand with the conscious intention of using RRA. However, time constraints, the nature of the research, problems experienced in the use of the Phase I survey questionnaires and the practical difficulties in achieving collaborative research all resulted in the design of a research approach that utilised key elements of an RRA approach.

There were a number of advantages in the use of an RRA approach. First, it enabled a defined problem to be explored in a flexible but structured way taking into account perspectives from a range of farmers and officials. Second, it enabled a great deal of work to be done during a relatively short field period in Thailand - important given the difficulties faced in achieving effective 'collaboration' in the research work. Third, the approach enabled a balance between data collection, interpretation and analysis to be achieved during the field visit itself. Fourth, the approach led to and was able to incorporate a variety of secondary data sources e.g., reports from the Co-operative Inspection Office. Finally, the use of an RRA approach identified and compensated for some the unreliability of the Phase I data which had used conventional survey research methodologies.

Three semi-structured interview schedules were designed for the Phase II work with the Paddy Farmer Groups. First, an interview schedule for the paddy Group Committee. Second, an interview schedule with the Kaset Tarnbon (village level extension worker). Third, an interview schedule with the Kaset Arnphur (district extension officer). A major objective was to assess the relative 'success' or 'failure' of the Paddy Farmer groups from these three different perspectives. The fourth perspective, that of the farmers themselves, is being assessed by the use of questionnaires by CMU staff and is not discussed in these notes. However, the design of this questionnaire was aided considerably by the preceding RRA interview schedules.

1. Interview Schedule for the Paddy Group Committee

After two initial tables designed to obtain information on the villages, committee members and farmers in these groups this interview schedule divided into six main sections. These were Agro-economic background to the village and tambon (sub-district); Background History of the Paddy Group; Activities of the Paddy Group; Participation by members; Economic background to the paddy Group; Factors affecting the success/failure of the Paddy Group.

2. Interview Schedule for the Kaset Tambon

This included Length of service in the extension department and in the tambon; Age and education background; Division of work between extension and non-extension work; Most important crops for the farmers; Main problems for the farmers and for their extension work; Details of their work with each of the different types of RPO; Links (if any) between the RPOs and T&V extension; Instructions/training from the district extension office regarding working with RPOs; which types of RPOs the least successful in the tambon and why?

3. Interview Schedule with the Kaset Amphur, including Agro-economic background to the District; Extension policy re: Farmer Groups, Housewives Groups and Natural Groups; Extension Policy regarding the Paddy Farmer Groups; Official view regarding the relative 'success' or 'failure' of the Paddy Groups.

Some preliminary results from the Paddy Group Committee interview schedule are shown in the attached chart. The chart shows data for two successful paddy groups (success) and five unsuccessful paddy groups (US). The RRA interviews showed that the great majority of these farmer groups were not operating effectively, were heavily indebted, had experienced a great turnover of officials and were largely ignored by an extension service which concentrates on the few successful PFGs or utilises other types of group extension purposes.

- **J Howard M Jones**, Agricultural Extension and Rural Development Department, University of Reading, Reading RG1 5AQ, UK.

SOME RESULTS FROM COMMITTEE INTERVIEWS

	LAVENHAM		US				MAN		US	
	Success	1977	Success	1975	No	US	US	1975	US	1982
Date formed	1976									
No. villages	13	10		10	Data			3		4
No. members	446	270		416	Coll.			70		115
No. agric. units	8	14		10 (NF)				-		-
Com. members	6	6		6				6		5
CH: from no. villa	5	NA		3				3		3
CH: occupations	farmers	3 F + T 3 farmers		2 F + T/1 orchard 1 Teach/F, 2 farmers				farmers		2 F + T 3 farmers
CH: official positions	-	(Kamnan (CH/FA)		Asst. V.H.				Managat MDC		V.H.H./Kamnan
CH: in other groups	2 F.A.	no change		7 F.A.				5 BMC		-
CH: turnover	no change			five x 2 one x 3				no change		two x 2 three x 1
Group: started by	KA	Vill.H.H./Doc.		Kamnan				KA		KA
Frequency C. meetings	monthly	5/7 a year		1 a year				6 a year		2 a year
K.A. attends	sometimes	all meetings		no				sometimes		attends
K.A. meetings	5/6 a year	4/5 a year		3 a year				1 a year		-
Planning	annual meeting	committee		no activities				no activities		no activities
Cash credit	no	yes (little)		no				no		no
Fertilizer credit	yes	yes		no				no		no
Defaulting	little	no		yes - ANC/BANC				yes/ANC		yes
Group income	share Y sales fert/herb	share Y shop/market		share Y				share Y		share Y
Group problems	some default, attendance meetings	none		defaulting				defaulting middlemen V.H. no interest		defaulting middlemen
Group solutions	godown	already OK		start longan group				-		new com.
				selling inputs for cash				If K could market		

- **Farmer groups and ITK in Benin**

In most cases, young field researchers do not reach all their goals, or have to modify goals and methodologies during their field research, but very few try to expose clearly the difficulties encountered so that other fieldworkers can benefit from their experience.

I report here on field surveys which have been conducted in an integrated rural development project in the south of Benin. The aim of these surveys was to identify problem areas so that appropriate subjects for research and extension activities for the project could be formulated, as well as to find out about indigenous technical knowledge (ITK) which could be developed further. Emphasis was to be put on areas of ITK concerned with management of soil fertility and sustainability. To reach a holistic understanding of the major problems, factors and their relationships without spending years collecting and processing data, we agreed that discussions and the qualitative point of view of farmers were to be preferred to comprehensive whole-farm data sets.

The team of agronomists, agricultural officers and extension workers asked farmers encountered in the fields and villages to participate in a discussion either on problems at the whole farm level or on agronomic topics. Informal groups were built without difficulty and farmers described their farms and discussed their main problems. These groups focussed on production and on cropping systems, and produced information on resources, activities, outputs together with some indicators on bush-fallow performance. These were to be examined more systematically: the main challenge farmers have to face is the development of more intensive cropping and production systems which remain sustainable, as time for bush fallowing is getting shorter.

This approach can be summarised through the device of the survey team: 'learn from the farmers and about them.'

- **Difficulties of assessment by researchers**

To elicit possible changes in the land use we stratified eventually the province according to ecological impoverishment patterns. Even then, the picture about the adjustments farmers are practising was still confusing, mainly because we had not conducted discussions with groups stratified on a socio-economic basis.

If this survey was to be prepared again then:

- These broad discussions would be conducted with a smaller number of groups, instead of aiming at an accurate geographical coverage. Thereafter some more topical discussions could take place.
- Even if we got some insight into regional differences in land use and cropping patterns, it would have been more efficient if a few areas had been selected regarding the main agroecological indicators and if we had surveyed the land use patterns in relation to region (land scarcity, soil fertility, climate, etc.) and to the socio-economic situation of different kinds of farmers in these regions.
- Moreover, we should also have let the farmers evaluate the performance of their different cropping systems: for example according to the frequency and period of scarce food and cash, to labour peaks *in* the calendar.
- Finally we should have returned to the villages with the conclusion on different cropping systems which we drew from farmers' assessments about the performance of these systems and with our own opinions concerning their sustainability. On this basis we could have discussed with farmers about further work on a sound basis.

Reflections about our approach to tapping ITK

In the first stage, the team developed a general attitude towards farmers of learning from them

and questioning what they are doing. It was a healthy reaction to usual attitudes, where farmers are considered as backward illiterates reluctant to accept change. Emphasis was put on looking for rationality and knowledge in what farmers are doing.

In fact we could only be amazed about farmers' sound knowledge about their environment, soils and plants. Farmers have also been very active in screening new cassava varieties and were more efficient and quicker in finding CMV resistant, sweet and early varieties than the research and extension programmes.

There is also some evidence that we, and other farmers, could learn from some of the better farmers. These must be better farmers because they succeed in allocating their own resources in order to solve their problems of scarcity, or because they develop better technical skills, or because they adjust faster than other farmers to changes, and not because they have access to more resources.

Yet a difficulty in assessing problems and solutions with farmers is their location specific knowledge: they cannot be aware of problems if they cannot compare situations where these problems are occurring and not occurring. In addition farmers often only mention problems for which they know potential solutions (other topics are not problems but hazards). Asking farmers about changes in composition of fallow showed that they have a very sound knowledge about its dynamics, that they know plants which they think are able to let soil recover faster than the others and that some of these plants are multipurpose trees; but they never thought about planting these trees as they do not foresee that these species will disappear or, even if they do, they feel helpless as they never saw anybody planting that kind of tree and would not know how to do it.

RRA is a very useful way of helping scientists to learn about farmers' concerns, which are mainly problems of short term scarcities. It should not prevent scientists from developing their own appraisal on the systems according to their own concerns, which are linked to long term sustainability. In conclusion, RRA is a good instrument to discuss possible changes, but the team would have gained more

experience by coming back to the villages for further discussions: later experiences show that it leads to a sound consensus on further possible solutions which can be experimented or tried. Some of these resolutions could have been 'on farm' experiments, some might have involved the whole village for common decision on land management, infrastructures, and so on. But then, a strong team is required to conduct the follow-up work!

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• Focussed groups in Ethiopia

Group work is central to any community based research and planning. This example comes from a Rapid Rural Appraisal exercise carried out in Wollo in Ethiopia by the Ethiopian Red Cross Society and the Ministry of Agriculture. The aim of the exercise was to explore ways of local level planning for natural resource management at the Peasant Association (PA) level. Using RRA techniques local extension workers and research staff can facilitate local planning by engaging farmers in the development process.

The particular focus of this RRA was the management of hillside closure areas. These are portions of land where agriculture and grazing is restricted in order to allow regeneration of natural vegetation; this may be assisted by tree planting programmes. In the past, blanket restrictions have been imposed and local people have not been centrally involved in the management of their hillside vegetation resources. There is an increasing realisation of the necessity to develop local management plans that allow the benefits of the closures to be received locally.

Different groups within the Peasant Association have different views as to the potential role of the hillside closures and the components necessary for local management. The RRA team explored this diversity of views in a series of focus group discussions with different sectors of the community. This note describes what was done and some of the problems associated with the application of this approach in community level planning.

What was done

- A group discussion was held among the RRA team to list the possible interest groups within the PA. These included: PA leaders, Producer's Co-operative members, individual farmers, Women's groups, youth, old men, old women, closure guards, livestock owners/non-owners, those living near/far from the closures etc.
- Discussion groups were set up with each of the different interest groups. Between 3 and 15 locals and 3-4 team members attended. The meetings lasted between 1 and 3 hours. A short checklist of questions was produced by the RRA team, but the discussions were allowed to flow freely; often being led by members of the farmer group. Ranking games were used to focus discussion around preferences and attitudes to different options. The attitudes of the members of the group were recorded as notes; these included verbatim quotes that demonstrated particular local views.
- A comparison of attitudes and plans for management was made following the first series of discussions (see Table 1). This matrix compares the attitudes of four of the groups to hillside closures. This gave the team an idea of the full range of views and an idea of the social/political position of the different adherents.
- A general workshop meeting was held where representatives from each of the focus groups were invited. Since they had each been party to the previous discussions, the debate in the larger meeting (30+ people) was fluid and open; all groups felt able to contribute. This provided a good forum for a discussion of future plans and a consensus on what action should be taken next was reached.

Problems and biases

- Place for meetings - the decision of where the group meetings were held was made by PA officials; it was usually the central meeting place. The 'officialdom' of this may have introduced a bias into the discussions. It is therefore important to

complement group discussions with individual interviews in other places (at peoples' homes, in fields, at the closures etc.).

- Contacts - the people invited to the group discussions tended to be the most accessible and often official position holders in committees etc. The representativeness of these individuals must also be cross-checked.
- Groups - the choice of groupings was made by the RRA team. They had a lot of local knowledge of the area, but incorporated their own perceptions in the choice. Only two of all the groups included women. Does the choice of groups represent effectively the socio-political reality of the village?
- Topic - the choice of a particular topic - hillside closures and woodland management - may restrict the open discussion of the issues that people think are really pressing. The topical focus should not be adhered to too strongly and the linkages with other components of the system need to be fully explored and peoples own priorities allowed to come out in the discussions.
- Groups and implementation - the involvement of different interest groups in planning certainly provides important insight for implementation (potential conflicts, identification of key actors etc). However the mechanism for continuing the participation of different groups through research and planning into implementation has not been fully addressed. If it is not, the institutions involved in the top-down development of the past will inevitably take control and the value of generating local involvement in the early stages lost.

A full write-up of the Wollo RRA (Participatory RRA in Wollo: Peasant Association planning for natural resource management) will soon be available from ERCS, Addis and IIED, London.

Group	Issues raised	Plans for management
PA leaders	- shortage of land - definite benefits of closures	- thinning of bush and pruning to increase grass production - cut and carry - controlled grazing? - No new closures - PA level control
Site guards	- fear for lives - lenient on poaching - do job because of food-for-work	- More guards - More PA support - Supervised cut and carry
Old men	- Rights of use not clear - Do not regard trees as belonging to them	- Increase use-grazing access, wood and bark collection - Split closures to 'belong' to different villages - Local management and control
Women	- Cannot get access for fuelwood, clay etc. - Extra labour in collection Wildlife pests	- Alternative home planting useless as trees will be taken - Open the areas for use

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• Some difficulties in training for interviewing

The core of our fieldwork in Nigeria consisted of a series of community, group and household interviews. This represents one aspect of triangulation. In addition, we had also envisaged a specialised function for each type of interview.

The community interview was meant to generate information about possible community development ideas (bearing in mind that nearly half of our course participants were community development officers). Similarly, the household interviews were meant to generate possible agricultural project ideas in particular, since most of the other course participants were agricultural officers. Finally, the focus group interviews were meant to generate information about villager's reactions to existing projects.

In practice, however, all three interviewing formats produced information across the board (relating to health, education and public works as well as to community development and

agriculture). They also tended to produce information about perceived problems and needs in a very generalised way which made it difficult to come up with particular project ideas and/or made it impossible to judge adequately between very different types of possible project solutions. For example, the DAG trainers thought that the problems with existing facilities in health, education, agriculture and so on demonstrated that the model of development which they embodied was inappropriate to Nigerian circumstances. Many of the participants, on the other hand, believed it was more a question of improving these facilities and/or of 'enlightening' the people.

Unlike most practitioners of RRA, we decided to use semi-structured questionnaires instead of a checklist of issues. The reason for this was that the training team felt that the preparation of such questionnaires (one for each of the different types of interviews) would constitute a useful intellectually rigorous exercise for our participants, which would force them into thinking clearly about what it was they really wanted to know about.

This approach was prompted by my impression that existing project identification was based on very casual and occasional (and elitist) conversations with villagers (to the extent it was based on information from villagers at all).

Unfortunately, although it was a successful classroom exercise, the questionnaires proved to be disappointing in the field, despite our training emphasis on probing through the use of the 'six helpers' and the use of open ended questions and blank sheets for taking notes.

The effect of such an approach was probably to impose a structure which inevitably reflected our participant's perception of the world, whereas a checklist approach would probably have allowed more of the villager's perception of the world to emerge. In methodological terms, it allowed less room for learning during the fieldwork itself because it provided less flexibility to follow up spontaneous new leads, as and when they emerged.

As far as the methodology of the interview formats themselves were concerned, the participants were all given protocols on household, group and community interviewing. However, we did not attempt to judge their performances in the field against these protocols and cannot therefore say how much they learnt and applied from these, nor how their interviewing techniques different from their previous performance.

It did seem to be however that course participants were most at home with the community interview. There were also some interesting variations which arose spontaneously. My own team, for example, decided to allocate responsibility for each sectoral section of their questionnaire to a different team member, while I allocated the remaining team members to observation duties. This set up worked very well at our community meeting, at which about 150 people (exclusively men and children) were present.

Another team, however, decided to conduct their community interview on foot while walking around the village. This suited the circumstances of their particular village where the homes were very scattered. None of our teams overcame the well know problem of dominance by the village head and other prominent villagers, nor did any of them really adopt any of the measures suggested in the literature which were included in their protocols. Similarly, none of the village teams

applied the protocols in relation to group interviews. In addition, many of the participants seemed to be unclear about the nature and purpose of group interviews.

As far as the household interviews were concerned, finally, less can be said with confidence since the trainers were not present. However, going by the reports presented and the discussions we had, it seems likely that these interviews were (like the others) characterised by a lack of probing. The lack of attention to detail was striking, as was the uncritical acceptance of the answers given. Equally, course participants also seemed to equate project intentions with the likely future realisation of such projects, a belief which is not borne out by past performance of village projects in Nigeria.

The overall conclusion, therefore, has to be that interviewing skills cannot be taken for granted and that communicating such skills is a difficult and time consuming business which requires more attention and practice than we were able to give during our course.

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4

Ranking

- **Wealth ranking in Sudan**

This technique uses the perceptions of informants to rank households within a village or quarter of a village according to overall wealth. Researchers very often feel reticent before embarking upon wealth ranking. Wealth *is* a sensitive topic. But this game ensures that any discussion of absolute wealth does not take place with reference to specific households. Classes or groups of households may be characterised as having certain features; wealth as a whole may be discussed; but when it comes to individual households these are only compared with each other, and the discussion remains solely of relative wealth/poverty. Moreover, the game appears to be more successful if informants who are known to the team do the ranking. They may be previous interviewees, or have attended protocol meetings. Better still they may have been met and talked to *in* a very informal setting, such as in the evening.

This technique requires careful preparation: first the list of households must be prepared; second the name of head of household must be written onto separate pieces of card or paper; next the informants identified; next the interview begun with a discussion of the informant's perceptions of wealth; then the cards are sorted by the informant into piles or wealth classes; these are reviewed and changes made accordingly; and finally the informant is asked to name the principal features of each household's livelihood strategy. The ranking is cross-checked with several rankings of the same list, and the final wealth classes computed (See Grandin, B. 1988. *Wealth Ranking*. IT Publications, for detailed discussion of procedure}.

This example comes from an RRA conducted in a village in Sudan.

There were no lists of households available for Faki Hashim. The team of investigators had hoped to use the sugar ration lists held by shopkeepers. These contain all the households in the immediate neighbourhood, and had the apparent advantage that people would have an incentive to be on the list, unlike tax or census lists. But on the day that the team came to collect the lists and elicit the help of a shopkeeper, the shop happened to be closed.

Instead a key informant, the supervisor of the government mango scheme and a lifelong resident of the village, was asked to name all the heads of households residing in the central part of the village. He had previously been interviewed and by this time knew the team well. From his list of about 70 a sample of 50 was taken at random, and the name of each written on separate pieces of paper. Although this may have produced a biased list through selective recollection of the informant, he did indicate that he was conducting a geographical sweep of the village to ensure none were omitted. The wealth ranking was then conducted on these 50 households.

The procedure of discussing terms for wealth and the placing of these cards into separate piles was conducted with three different informants. All three were in agreement over the features of household livelihoods that characterised their level of wealth. In general the most wealthy were thought to own agricultural land, own livestock, own transport vehicles, be involved in commercial activity or be receiving remittances from overseas. Those of middling wealth were involved in farming, but mainly as sharecroppers, and might own a few livestock; and the poorest households were those relying solely upon agricultural labouring as a source of income.

Table 1. Results of wealth ranking conducted by three informants on 50 households of Faki Hashim

HOUSEHOLDS	INFORMANTS' RANKINGS			AGGREGATE SCORE	WEALTH CLASS
	1	2	3		
1	0.72	0.4	-	-	-
2	0.29	0.2	0.2	0.69	E
3	1.00	0.8	0.6	2.40	B
4	0.43	0.6	0.4	1.43	D
5	0.72	0.8	1.0	2.52	A
6	0.43	0.2	0.4	1.03	D
7	0.57	0.2	0.2	0.97	E
8	0.29	0.2	0.2	0.69	E
9	1.00	0.2	0.6	1.80	C
10	1.00	0.8	1.0	2.80	A
11	0.86	0.6	0.6	2.26	B
12	0.72	0.4	0.2	1.32	D
13	0.14	0.2	0.2	0.69	E
14	0.43	0.2	0.2	0.83	E
15	0.72	0.8	0.2	1.72	C
16	0.86	0.8	1.0	2.66	A
17	1.00	0.8	1.0	2.80	A
18	0.72	0.6	0.2	1.52	C
19	1.00	1.0	1.0	3.00	A
20	0.57	0.4	0.2	1.17	D
21	0.57	0.2	0.2	0.97	E
22	0.29	0.2	0.8	1.29	D
23	0.86	0.2	0.2	1.26	D
24	1.00	0.6	0.8	2.40	B
25	0.43	0.8	0.2	1.43	D
26	0.72	0.4	1.0	2.12	B
27	0.72	0.4	0.4	1.37	D
28	0.43	0.2	0.2	0.83	E
29	0.72	0.2	0.4	1.32	D
30	1.00	0.8	1.0	2.80	A
31	0.72	0.8	0.6	2.12	B
32	1.00	0.4	0.4	1.80	C
33	1.00	0.6	1.0	2.60	A
34	1.00	1.0	0.8	2.80	A
35	0.57	0.4	0.2	1.17	D
36	0.43	0.2	0.2	0.83	E
37	0.57	0.6	0.4	1.57	C
38	0.43	-	0.2	-	-
39	0.43	0.2	1.0	1.63	C
40	0.43	0.6	0.8	1.83	C
41	0.57	0.6	0.2	1.37	D
42	1.00	0.6	1.0	2.60	A
43	1.00	0.6	1.0	2.60	A
44	1.00	0.2	0.2	1.40	D
45	0.86	0.6	1.0	2.46	B
46	0.57	0.6	1.0	2.17	B
47	1.00	1.0	1.0	3.00	A
48	1.00	1.0	0.8	2.80	A
49	0.86	0.6	0.2	1.66	C
50	0.43	0.4	0.4	1.23	D
No. Classes	7	5	5		

Table 2. Major occupations of each household in the five classes produced by the wealth ranking

Household number	
	Class A – Wealthy
	Principal components of household livelihood
5	Merchant
10	Lorry; pick-up; tractor; shop
16	Flour mill; sorghum merchant
17	Merchant
19	Farmer; brick maker; 2 lorries
30	Merchant; good agricultural land
33	Agricultural scheme
34	Army colonel
42	Big merchant
43	Army major
7	Medical laboratory owner
48	Medical assistant
	Class B
3	Big merchant
11	Butcher; lorry
24	Merchant
26	Lawyer; 2 lorries
31	Son in Saudi Arabia
45	Merchant; good agricultural land; shop; trailer
46	Lorry and merchant
	Class C
9	Supervisor of agricultural scheme, owns land and 20 cows
15	Supervisor of scheme, owns land
18	Shop, tractor, owns land
32	Agricultural scheme, owns land (owner)
7	Lorry, merchant
39	Lorry and taxi
40	Taxi
49	Lorry and taxi, son is a Doctor
	Class D
4	Retired army officer
6	Civil servant with agricultural land
12	Medical assistant
20	Farmer and several lorries
22	Cultivator in scheme; average farmer
23	Lorry and pedlar
25	Taxi
27	Lorry, good agricultural land and sons university graduates
29	Taxi, shop
35	Fodder shop
41	Farmer, lorry, and 2 migrant sons
44	Agricultural land, farmer, 2 migrant sons
50	Lorry; official in university
	Class E – Poorest
2	Small farmer
7	Poor farmer
8	Old man; small farmer
13	Street sweeper
14	Government worker, some livestock
21	Lorry
28	Not cultivating his agricultural land, migrant sons
36	Lorry

The first informant was wealthy. He began with five piles, but during checking after allocating all 50 cards he divided the pile for the richest into two. All changes then made were from richer to poorer piles. Finally he created an extra category for the very poorest, leaving seven piles in all. The second and third informants were both poor. Neither changed the number of piles from their starting five. Following the rankings the first informant was asked to name the key components to the livelihood of each household. This produced summaries such as merchant, lorry-owner, land owner in agricultural scheme, etc.

The results of the ranking are shown in Tables 1 and 2. Only 48 were eventually given aggregate scores as informants 2 and 3 were not asked to rank themselves. Informant 1 was not contained on the list. The aggregate scores for each household were then broken into 5 classes: A for 2.5-3, B- 2.0-2.49, c- 1.5-1.99, D -1.0-1.49, and E -< 1.0. This exercise produced some very interesting results:

1. Clearly the majority of households rely on non-farm income sources. Very few rely solely upon farming. Those that do so are mainly in Class E.
2. The large number of merchants and owners of transport reflects the proximity and opportunities of Khartoum.
3. There are some interesting comparisons to be made between the rankings of the 3 informants. Over some households they are in close agreement: all of 17, 30, 34 and 47 are wealthy; and all of 2, 8 and 13 are very poor. But there are also some large disagreements, particularly between the rich and the two poor informants: household 44 was placed in the top pile by informant 1, but in the bottom piles by the other two. Perhaps informants 2 and 3 did not know of the two migrant sons sending remittances. Informant I may have had some special information about household 23, or just believed he was a successful pedlar.

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• Preference and direct matrix rankings, Sudan

This note is based on the experience of using ranking techniques to investigate local incentives to tree management in a RRA exercise carried out near Khartoum by members of the Institute for Environmental Studies (University of Khartoum) and representatives from various NGOs in Sudan.

Two ranking techniques were used: pair-wise preference ranking and direct matrix ranking. I will not discuss the actual techniques (information on this can be found in RRA Notes 1), but will concentrate on a comparison of their uses and some of the potential problems of their application.

Pair-wise preference ranking

This technique was used to compare preferences for different tree species between individuals (men, women, young, old, richer, poorer etc.) and between different groups (settled residents and displaced immigrants). The ranking highlights the differences in priorities (as expressed by the ranking of the 6 species) and differences in decision-criteria used (as expressed in the list of 'good' and 'bad' properties of each tree).

Figures 1 and 2 illustrate the results from a comparison between two distinct groups in the village of Faki Hashim, north of Khartoum. These results came from two ranking exercises conducted with a few people from each group (all men). The two groups chose different trees as the most important 6; the long-term residents choosing trees that are particularly important for shade in their homes or are common along the flood retreat farming land on the banks of the Nile. The migrants chose trees significant in the common property grazing land beyond the village.

The two groups came up with a set of criteria; some elements were common and others quite distinct (Figure 2). *Sidir.*, *Zizyphus spina-christi*, was ranked highly by the displaced migrants group (No 1), but lower (No 4) by the long-term residents. The reasons for this can be found when the criteria for choice are

investigated. The migrants use Sidir as an important component of their funeral ceremonies; it also has a valuable fruit important in nutrition. The reason the settled group do not rank Sidir highly is because of the trouble caused by kids throwing stones over the household's walls to dislodge the fruit.

Direct matrix ranking (DMR)

DMR starts with the criteria for choice and ranks each item according to the different criteria. A discussion of the criteria provides a good starting point for investigating choices. DMR can be linked to pair-wise ranking by using the list of criteria generated as the basis for the ranking. Getting a full list of local criteria is a complex task - in the above example 31 different criteria were mentioned by the two groups in their choices for trees. In the Sudan study both techniques were used for ranking and a good level of comparability between the rankings was found.

The results of a DMR based on criteria generated by a pair-wise ranking exercise are shown in Figure 3.

An investigation of the local weighting of criteria can also provide useful insight. A DMR can be followed by asking a forced question: 'if you could choose only one of the trees which would you choose'. Sometimes the top ranked item is not chosen because one particular criterion outweighs the others. Another option can be to rank the criteria

themselves and assign some kind of weighting system.

Issues arising

Ranking techniques provide a useful way of investigating local decision-making criteria and they provide general comparisons between different priorities. Outstanding questions about the use of ranking techniques include:

How useful are they as a quantitative method assessment? What are the dangers of combining/adding different rankings to come to a planning decision?

What is the potential for the development of ranking techniques through criteria weighting etc. or should they be treated simply as a game context for essentially qualitative interviewing?

How appropriate are the games to local cultural situations (eg forced comparisons etc.)? Are there alternative adaptations of local games that could be used as a focus for ranking discussions.

[The full report of the IES/IIED Rapid Rural Appraisal exercise will soon be available from IIED, London. It is entitled: Rapid Rural Appraisal for Economics: exploring the incentives to tree management in Sudan.]

• Ian Scoones IIED, London, UK.
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Fig 3. Direct matrix ranking

	Samar	Seyal	Laot	Sidir	Heglig	Sunut
1. Resist drought	1	2	6	3	4	5
2. Good for growing on hard soil	1	2	6	3	4	5
3. Fast growing	6	5	2	3	1	4
4. Best for fodder animals	1	2	4	3	5	3
5. Ease of getting pods	1	6	2	5	3	4
6. Leaves as fodder	2	1	3	4	6	5
7. Fruits as fodder	-	-	-	1	2	-
8. Unripe pods are bad	-	6	-	-	-	-
9. Low for grazing	3	6	1	2	5	3
10. Gum good	-	3	1	-	-	2
11. Best fuelwood	1	2	5	3	6	4
12. Best for burning	1	2	5	3	6	4
13. Smoke less	1	2	5	3	6	4
14. Best for slow burning	1	2	5	3	6	4
15. Best smell	1	2	6	4	5	3
16. Best for building	5	4	6	3	1	2
17. For making furniture	4	3	6	4	1	2
18. For making boats	-	-	-	-	-	1
19. Making saddles	-	-	-	-	1	-
20. For rosaries	-	-	-	-	1	-
21. For human food	-	-	1	2	-	-
22. For medicines	-	-	-	-	1	2
23. Does not attract pests	-	-	-	1	2	-
24. Providing good shade	3	2	6	1	5	4
25. Ability to regenerate from seed	4	2	5	1	3	6

Criteria derived from pairwise ranking; Informants same primary school teacher (age c. 40)

- **Ranking of carpentry skills**

See RRA Notes No.6, pages 4-12. June 1989.

<ul style="list-style-type: none"> • Godfrey Crornwell ITDG, Rugby, UK.

- **Using ranking in training of field level staff**

Introduction

These notes are developed from the training of agricultural extension officers from India who are front-line workers in a project aimed at training marginal and resource-poor farmers in a balanced and economic use of fertiliser. They are employed by the extension organisation for the Indo-British Fertiliser Education Project (IBFEP), funded by the ODA, in *six* states of North and Northeast India, which is currently nearing the end of its second phase.

The training as a whole emphasises participative learning, and aims to respond to participants' needs for acquiring skills to reach rural women effectively. IBFEP has recently introduced an element into the project which requires the extension officers to actively involve women from target households in their agricultural extension training. Their ability to learn what women's existing activities, responsibilities and resources might be, across six very different states, is therefore the starting point in the training. How they monitor the progress of their women's programmes is a second important aim. A technique such as ranking was therefore identified as a useful learning process which they in turn could use in the field with different groups of women to gather first hand, relevant information.

Constructing the direct ranking matrix

The technique was introduced in three stages. The first stage demonstrated what the technique is and how it works by showing participants a ranking of fertiliser types done in an IBFEP village by Robert Chambers in

April 1988 (RRA Notes 1, June 1988). This example provided a lot of discussion and excitement and paved the way for stage two in which participants were divided up into five groups of five members each and asked to construct their own direct ranking matrix, as if they were farmers: two groups on paddy varieties, two groups on vegetables types and one group on fertiliser. The intention was to compare- the two rankings of paddy, the two of vegetables and the fertiliser ranking with the Chambers version.

Even though the participants were using their knowledge and preferences as agronomists, it did not detract from the process of experiencing the quality of discussion required to establish the list of criteria and to score them. Reaching a consensus took longer for some groups than for others. The learning process was reinforced by the fact that each group's matrix was different.

The third stage of the exercise was to ask the participants whether they would add any further criteria if they were women farmers. Those groups ranking vegetables were able to respond to this first, by adding criteria such as 'easy to cook', 'nice taste' and 'nutritious' and this encouraged the other groups to consider similar criteria for paddy, the suitability for both growing seasons and the market price. The fertiliser group had problems and this led onto discussion of how socio-economic criteria are as important to cultivating households as the technical criteria. This awareness of different but equally valid perspectives was judged to be an important outcome and one which might not have been so effectively achieved if the participants had all been asked to role play women from the beginning of the exercise.

Again the impact might have been less if one of each set of rankings had been role played as women for comparison in stage two; during that stage trainees had to experience actually doing the ranking, to accept that their colleagues' rankings were also of value and to transpose the idea to their work situations where using the technique with farmers might lead them to useful information exchange. A final reinforcement was provided however by comparing with Chambers' other rankings done in other IBFEP villages which, by

showing the variations and the similarities, increased the participants' confidence in trying it out themselves.

Comments

This was the first time ranking had been used in the training programme and it was received enthusiastically. For fieldworkers working with groups it does offer a concrete way of collecting data and reinforcing group solidarity. In a training situation in the UK there is a limit to how much role play can realistically be undertaken; a technique such as ranking is an opportunity for participants such as these male extension officers to begin to concern themselves with issues identified by women.

As far as training for gender awareness is concerned, techniques which enable male extension workers to learn about rural women directly are invaluable and those which provide the means for women's knowledge and judgement to be the determining factors in prioritising needs and information even more so.

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5

Health

Susan Rifkin, Hugh Annett and Pauline Ong

- **Report of Rapid Appraisal trial, Mbeya, Tanzania**

This is a report¹ of a rapid appraisal (RA) of health problems in Mbeya, Tanzania. The workshop was divided into three phases:

- introduction to the methodology;
- data collection; and
- formulation of a plan of action.

Fieldwork was carried out in three wards chosen by the municipal medical officer. All three wards were squatter areas. Two were areas of high concentration of population. The third was a peri-urban ward in which the main source of income was still farming. In addition, this ward had key officials who lived some distance from the area and thus had limited contact with the residents and their problems. As a result, this ward presented problems not encountered in the two more urbanised wards and posed different challenges for the rapid appraisal methodology.

Workshop methodology

It was explained that:

- RA was based on three sources of information—documents, key informant interviews and observations.
- is undertaken by professionals in multidisciplinary teams in order that various aspects of information about one

subject can be explored and experiences can be applied to judge the importance of the information presented.

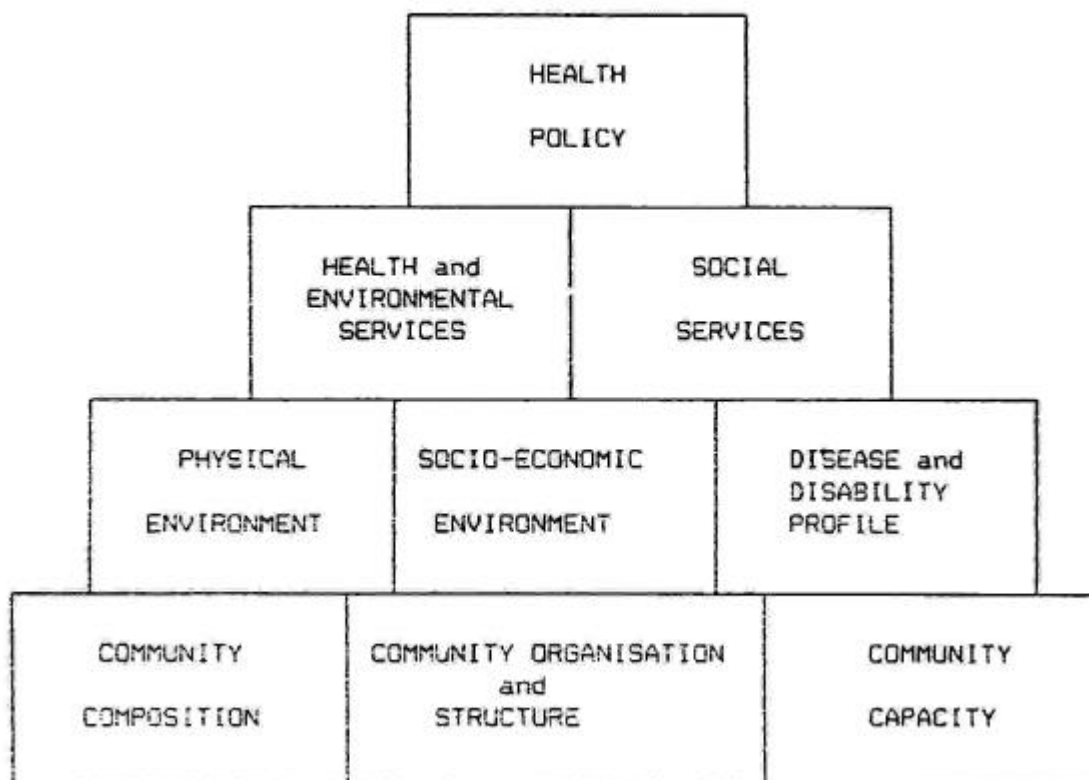
- RA is not merely a method for collecting data about the health problems of the urban poor but, more importantly, a process by which to make a plan of action to improve the living conditions of the people based on the participation of these urban residents in defining their own problems.

The idea of using a planning profile in the shape of a pyramid as a means of identifying important areas for which information needed to be collected was presented. Participants were told that the blocks of information which made the pyramid were collected from the three sources mentioned above. To illustrate graphically this approach participants were asked to write information collected from documents on yellow cards, from key informants on pink cards and from observations on green cards.

The recording of information on the cards and placing them in the categories of blocks of the planning profile provided the basis both for the recording of information and the analysis.

¹ The methodology is described in the document 'Guidelines for Rapid Rural Appraisal to Assess Community Health Needs: A focus on Health Improvements for Low Income Urban Areas'.

PLANNING PROFILE



The planning profile was explored in detail. Participants were divided into three teams composed of members from different sectors. Each team brainstormed on questions which needed to be asked to build the blocks of the pyramid. Using white cards, they wrote the questions down and each was read, placed in the appropriate block of the pyramid (which had been drawn on large sheets of white paper and attached to a blank wall), then grouped together around specific issues. These groupings provided the basis for the categorisation of data and included health policy, health and environmental issues, social services, physical environment, socio-economic environment, disease profile, community composition, community organisations and structure and community capacity for self-help. Participants then identified from which sources these questions might best be answered.

Based on the categorisation of data in the planning profile a checklist of information for

interviews and observations was developed. The checklist reflected a choice of information based on discussions about each item. The entire group also considered which people might be key informants. A list was compiled and written on white paper.

Finally participants looked at documents as a source of information to answer some of the questions which had been previously identified. Each participant was asked to bring from his/her office documents which would help to identify health problems. Each team was assigned to draw from the documents general information on Mbeya.

In preparation for data collection by semi-structured interviews and observation the checklist which was prepared on the second day was recorded on the first pages of a notebook given to each of the participants. On the front cover of the notebook information was recorded which reminded participants about how to open interviews, how to record

notes, how to conduct semi-structured interviews in teams and how to end interviews.

Data collection and analysis

The first field visit was by pre-arrangement to three wards selected by the municipal medical officer. Each team went to the wards, met the ward officials and presented the reasons for the interviews. Assistance of the officials was asked for obtaining interviews with other key informants. In the meeting with ward officials, information was collected from them about health problems. However, ward officials comprised less than one quarter of all ward interviews.

Much time was given to key informant interviews. On returning the teams identified the major health problems in the three wards. Each ward had different problems analysed by these professionals based on key informant interviews, observations, documents and their own experience. Participants then reported in plenary the answers to the following questions:

- What were the major health problems?
- Who told you about these problems?
- Did your observations confirm these problems?
- Do the documents suggest that these are the problems?

However, when the problems were analysed, it was realised that no priority had been given to them. It was thus arranged for teams to return to the field to ask key informants to rank the order of priority of the problems they had identified.

Each key informant was given 8-10 cards with the name of one identified problem on each card, then asked to rank these cards according to the most important problems. Blank cards were provided in case a problem was identified which had not earlier been recorded. Health priorities were then compiled for each ward. The teams then suggested solutions to these problems.

A matrix was introduced by which to rank the feasibility of the recommendations in order to place priorities on which was to be undertaken first. The method was illustrated by asking each team to choose one possible

recommendation for the ward it surveyed and to judge its feasibility by the following criteria:

- health benefit (what was the overall health impact?)
- community capacity (how committed was the community to solving the problem and what could they contribute to its solution?)
- sustainability (would the intervention be able to be maintained and at what cost for maintenance?)
- equitability (which income groups were likely to benefit most?)
- cost (what are the initial capital and manpower costs?)
- time for benefit (how long would it take before changes would be noticeable?).

Each recommendation was scored in these categories by giving '+' for low, '++' for medium, and '+++' for high. The highest score was given the highest priority.

Assessment of methodology: views of the participants

In general, comments were positive and enthusiastic. Positive experiences included:

- Discovering aspects of community life which were unknown to each before the investigations;
- Working in multidisciplinary teams to contribute to and draw upon experiences from other sectors; and,
- Using semi-structured interviews instead of questionnaires to discover community problems.

There were however some difficulties with the approach. The following needs were highlighted:

- The need to overcome the bias of the sample.

Because of possible bias, it was noted that it was important that ward official interviews comprised less than one-quarter

of total key informant interviews, that interviews were undertaken both in focus group and in individual situations and that interviewers be constantly aware of these possible biases. It was felt however that bias could be limited if key informants were carefully selected. It was suggested that in the future more time be spent in identifying key informants.

- The need to overcome the shortage of time.

Time was not sufficient to complete the planning process. A ten day workshop would be the minimum to come up with some solid recommendations.

- The need to overcome problems of interviews.

Participants felt that the lack of experience of how to do semi-structured interviews was detrimental to the collection of data. They suggested that a pilot interview be undertaken to give them some experience in these methods.

Conclusion

It appears to us the approach developed in the guidelines provides a solid basis for programme design and development. It also has the advantages of gaining community dialogue at the very early stages of programme planning to build a basis for negotiation and partnership between the resource holders and beneficiaries. As indicated, the use and validity of the approach to improving the health of the urban poor will depend in great part on the interest and commitment of the authorities to deal with the complex problems in slum and squatter area. Adaptations to individuals' situations will of course have to be made. However, the general approach appears to be both acceptable and useful to municipal planners in their search to deal with the problems of the urban poor.

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• Rapid Appraisal South Sefton (Merseyside) Health Authority

March - June 1989

1. The introduction of Locality Management in South Sefton raised questions about the assessment of need of the population served by the District Health Authority. Traditionally needs have been indirectly assessed through the use of health indicators. However, with the advent of more consumer-orientated thinking the qualitative approach has to be considered as a crucial option in understanding user's perspectives on health and health services.

Community development approaches, particularly in Health Promotion, have focused on users' perspectives, but the methods of work tend to be labour-intensive and small scale. The main problem has been how grassroots ideas can be fed into the planning and policy setting process. Furthermore, how can local concerns be translated into action when organisations such as the Health Service tend to be centrally controlled. Rapid Appraisal (RA) provides some solutions to the above questions.

2. The choice of RA in South Sefton was informed by the decision to 'go local' in management and provision of service. This opens up opportunities to involve local communities in diagnosis of health priorities, and thus identifies for Locality Managers key people who can participate on a longer term basis in the health planning process. It also has benefits in creating a baseline for regular follow-up RA exercises, assessing progress in service development as seen by the users.

Building relationships with a community is important for managers who are committed to bottom-up planning as they can create more permanent forums for debate through RA. In South Sefton, RA is seen as the first step to involve communities in planning and evaluating health services. The managers carrying out RA are capable of translating communities' views into workable policies

and practices, and through the RA mechanism will be accountable to the community.

3. The RA exercise in South Sefton was based upon the WHO document 'Guidelines for Rapid Appraisal to Assess Community Needs: a Focus on Health Improvements for Low Income Urban Areas'. The authors of the document planned a two-day workshop with the Manager of Research and Development in Sefton, who had secured participation of a variety of managers.

From the Health Authority:

- the Director of Nursing Services, Community, Elderly and Mental Handicap;
- the Director of Nursing Services, Mental Health;
- the District Health Promotion Officer;
- the Operational Planning Manager; and,
- the Manager of Research and Development.

From other agencies:

- a Principal Housing Officer;
- the Deputy Administrator of the Family Practitioner Committee;
- the Planning Officer of Social Services; and,
- the Research Officer of Social Services.

The workshop took place on March 16th and 17th 1989. The first day and a half was devoted to formulating questions relating to the information pyramid as described in the document. The managers in South Sefton could not be released for the required ten days, and the interview programme had to accommodate this. Instead, a timespan of eight weeks was agreed in which all the interviews and preliminary analysis would be completed.

The District Health Promotion Officer and a Nursing Officer who were both knowledgeable about the ward to be

investigated (Linacre ward in Bootle) drew up a list of names of key informants. Three multi-disciplinary subgroups were then allocated a mixed group of interviewees and arranged their own interviews. One intermediate working meeting was planned to assess progress.

The subgroups carried out almost all their interviews within the set period and did preliminary analysis on the data they had collected as a group. A one-day workshop was held on May 18th to analyse the total data set, and clearly defined issues were highlighted. These were 'reduced' to one-line statements and then ordered into the separate categories. Each statement was typed into a colour-coded card to be presented to the informants for placement into priority order. Subsequently a final meeting was held to complete the analysis of the data and prepare a plan of action.

The information pyramid was found to be equally relevant in the Sefton situation as in the Third World. However, emphasis on data collection should shift mainly to interviewing and observation, rather than gathering documentary evidence. Health planning in the developed world is heavily based on quantitative data, but in contrast to underdeveloped countries, this data is so abundant that planners are struggling with turning this into information rather than having to search for data. This, therefore, poses the problem of losing sight of what the population for whom services are planned actually want themselves. In using RA, the investigators became aware of the need to re-focus their attention on collecting qualitative data by listening to the community.

The interviews themselves went very well, because the co-operation of all interviewees was good. The three teams were very enthusiastic about talking directly with the community about their perceptions of priority problems. As managers they had only indirect contact with people who (potentially) use their services and the RA interviews made them feel 'in touch' again. Furthermore, they gained new insights into the complexity of causes of ill-health as they were explained to them in terms of the socio-economic

and cultural fabric of Linacre ward. On the other hand, certain findings confirmed what was known already.

An additional benefit was the truly multi-disciplinary nature of the investigative work itself. Rather than sitting together *in* joint planning meetings, managers were out actually working together, getting to know each other, sharing information and analysis.

It is too soon to evaluate the success of the exercise in leading to joint action for health in the ward. However, this is being monitored and a paper on the exercise is now being prepared for publication.

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6

Participatory approaches

John Thompson, Peter Veit, and Jennifer McCracken

- **From the Ground Up and participatory RRA in Kenya**

From the Ground Up (FGU) is a collaborative effort of institutions in Africa and North America committed to improving natural resource management in Africa. The programme is administered and co-ordinated by the Center for International Development and Environment of World Resources Institute, in Washington, DC, USA, together with assistance from Clark University, Massachusetts, USA.

The objectives of FGU are threefold:

- to develop a better understanding of the core elements and key institutional, managerial, and technological relationships which contribute to successful natural resources management at the community level;
- to effectively disseminate the results, conclusions, and implications of the investigations 'across' to other communities and 'up' to the national policy apparatus and the development community; and,
- to assist communities to better identify long-term needs and opportunities toward enhancement and sustainable use of the local resource bases.

Over the past year, the National Environment Secretariat of the Ministry of Environment and Natural Resources, Kenya, has been conducting a series of village-level exercises on effective natural resources management as part of this coordinated project. NES has employed Participatory Rapid Rural Appraisal

(PRRA) methods along with conventional household surveys to develop case studies of successful community efforts in resource management, and to prepare Village Resource Management Plans (VRMPS) - community-specific action plans for improved local management of critical natural resources.

NES has met with promising results in the five Kenyan communities in which PRRA methods have been used. The communities, with the assistance of government technical extension officers, have organised realistic VRMPs for developing, conserving and sustaining local natural resources, which they are now in the process of implementing.

The PRRA methodology proved especially useful in targeting particular priority areas, such as the rehabilitation of domestic water supplies and the improvement of horticultural crop production and marketing programmes, which required external advice and assistance. NES has been able to enlist specialised agencies, including the Kenya Water for Health Organisation (KWAHO), and the Horticultural Crops Development Authority (HCDA) to work with the communities to develop viable strategies and implement appropriate activities to deal with these and other issues.

In June of this year, NES, Egerton University/Kenya, Clark University, and the Center jointly sponsored an intensive, month-long training programme in the PRRA/VRMP methodology. The 24 participants included senior Government officials, Government technical extension officers, representatives of Kenyan NGOs, as well as officials from FGU lead organisations in Somalia, Ghana, and Sierra Leone.

NES believes the PRRA/VRMP methodology has the potential to:

- provide a systematic, but semi-structured approach to enable a multisectoral team consisting of community leaders, extension officers, and NGO staff to examine community-based resource management concerns and carry out village appraisals;
- provide high quality information and clear pictures of community problems, opportunities, and capabilities in a relatively short amount of time, at a low cost, and without the need for foreign experts;
- establish locally developed and managed action plans to bring together, on one hand, development needs defined and ranked by community groups, and on the other, inputs and technical skills of development specialists with expertise in water, livestock agriculture, and forestry from government technical services, donor agencies, and NGOs;
- maximise local participation by gathering and analysing data in group discussions, using mostly visual instruments, and to facilitate community mobilisation, particularly of women, in activities that are truly sustainable;
- move beyond the conventional sectoral approach to project design, monitoring, and evaluation, and offer a holistic perspective on the factors that impinge on a community's progress; and,
- bridge the gap between intended beneficiaries and the professionals who manage development resources, and introduce natural resource management practices that village leaders and institutions have incentive to maintain.

However, a number of important issues have yet to be fully addressed. These include:

- the long-term application of the VRMPs (i.e. will the communities continue to refer to plans and update them periodically once the initial enthusiasm fades?);

- the effectiveness of VRMPS in high potential areas (i.e. all VRMPS prepared by NES have been in communities situated in different semi-arid, low-potential sub-locations in Kenya);
- the appropriate lead organisation to conduct PRRA/VRMP exercises (i.e. should the government be primarily responsible, or would it be more effective and efficient to leave such work to specialised NGOs with the institutional capacity and flexibility to orchestrate the appraisals?); and,
- the effectiveness of institutionalising the PRRA/VRMP methodology (i.e. what is the proper set of techniques to internalise the procedures into local organisations and to integrate them into the country's policies?).

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| <ul style="list-style-type: none"> • John Thompson, National Environment Secretariat, Ministry of Environment and Natural Resources, PO Box 67839, Nairobi, Kenya, (now at Graduate School of Geography, Clark University, 950 Main Street, Worcester, MA 01610, USA), and Peter Veit, Center for International Development and the Environment, WRI, 1709 New York Avenue NW, 7th Floor, Washington DC 20006, USA. |
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• Diagrams for participatory RRA

In an earlier article for RRA Notes (number 4) I described some participatory RRA work with the Aga Khan Rural Support Programme (India), (AKRSP(1)). The variety of diagrams which we used during this work certainly seemed to be valuable in encouraging us to involve some of the local people in the RRA. Here I will highlight some of the advantages of using such diagrams, and some of their limitations which I feel need to be overcome if the diagrams are to be widely applicable in participatory RRA work.

Advantages

- At an early stage of the RRA, updating an existing map of the village with a group of farmers meant we spent several hours together, discussing with them the purpose of our visit, the nature of the RRA as well

as the recent changes in land use in the village.

- After the field investigations, presenting our findings in the form of diagrams to a selected group of community leaders and women allowed us to further cross-check the information, correct any mistakes and discuss the issues represented in the diagrams.
- The leaders felt that the diagrams would help them to put across the main findings of our work, by highlighting the key issues which had emerged, and so the leaders themselves presented the diagrams at the village meeting scheduled at the end of the RRA.
- The diagrams presented at this meeting served the purposes of:
 - describing the village (through the map and transect) so discussions could begin on a common understanding of the resource base;
 - highlighting the key issues, and, by their very presence, forcing these issues to be addressed. One leader, presenting the fuelwood calendar only fleetingly, was told by a farmer to hold it up again so this important problem could be discussed;
 - showing community achievements and potential for improvements (for example a crop calendar of salt-tolerant varieties, some of which had been tried by farmers, and a water quality calendar focussing on ways of extending the period when the water is fresh);
 - making problems and opportunities explicit (particularly in the transect) so they can be questioned and discussed openly; and,
 - encouraging individuals who might otherwise have remained silent to speak up. For example, several women commented on a fire-wood calendar saying that it was unrealistic - the real situation was much worse.

The way the diagrams were used in these village meetings also taught us much about the social structures in the villages. For example,

an elderly Brahmin villager took much time to explain the diagrams to the men and women and clearly had respect. He was identified as an important contact for AKRSP (1) and indeed became chairman of the village organisation which was formed after the village meeting. In another village, the authoritative domineering manner of the village chief became obvious as he took control of the meeting, using diagrams to try and 'blind by science' the other villagers. A possible threat to his leadership became apparent as a young man continually questioned the chief's comments and criticised his presentation. It turned out that this was an ongoing power struggle which we only learned about at this late stage of the RRA.

Limitations

- Some of the diagrams are too complicated to be widely accessible. This is especially true of the transect. We tried to avoid this problem by presenting the transect as a dialogue, with an RRA team member asking one of the leaders about the transect as it was held up – e.g. "what particular problems are there in the grazing land?", and the leader would respond by reading out the problems listed in the transect.
- Related to this point, the wording in the diagrams needs to be minimised. We used some colour coding in the seasonal calendars to represent the three seasons, rather than writing out the months. Better ways need to be found for representing issues pictorially.
- Even with clear and simple diagrams, their usefulness is limited if the size of the meeting means that a proportion of the audience cannot see them.
- The diagrams we used were drawn by ourselves, the RRA team, and although frequently amended by the villagers still showed signs of outsiders' perspectives. In particular, the map - drawn conventionally with north to the top - proved to be upside-down as far as the leader who presented it was concerned. He ended up turning it upside-down to avoid confusion! Local people should have been involved in the initial drawing of the diagrams.

Overall I think the use of the diagrams was a successful experiment, especially as they were presented by the community leaders. Many adaptations are needed, and I am sure there is still much undiscovered potential for diagrams as tools for participatory analysis and decision-making.

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7

Monitoring and evaluation

David Potten and Mick Howes

• PBME and Rapid Rural Appraisal

Introduction

A new discipline has emerged in recent years - Monitoring and Evaluation, usually known as M&E.

M&E usually involves analysis of three aspects of development projects:

- Physical programmes;
- Financial progress; and,
- Project impact or benefit monitoring.

The last of these has its own acronym, PBME (Project Benefit Monitoring and Evaluation). PBME aims to identify the extent to which intended project beneficiaries are in fact receiving the benefits planned. It also looks more broadly at the impact (positive or negative) the project may be having on other people, on the environment, on the regional or national economy.

The following notes look at the role RRA may have in PBME of agricultural development projects.

Weaknesses of 'conventional' PBME

The typical M&E programme has a number of shortcomings:

- use of expensive random sample surveys;
- use of randomly selected crop-cutting samples;
- long delays in presentation of results and reports;

- a need to drastically reduce the data collection programme after two or three years, when it is realised that the original programme was over-ambitious;
- detachment of the M&E unit from the day to day activities and preoccupations of project management and other line staff;
- a tendency for routinisation and for the M&E unit to become the project report writing unit;
- concentration of PBME activities during the donor funded period of project activities;
- low priority given to PMBE by the host government once donor funded activities have ceased.

The potential contributions from RRA

Cost effective data collection

For certain kinds of data that have 'conventionally' been collected by random sample survey methods RRA techniques offer a cheaper, faster method of data collection, that has been shown to provide data of acceptable quality for PBME. These data areas include:

- cropping calendars;
- labour profiles;
- crop and variety preferences;
- cropping constraints, and problem identification in general; and,
- crop and input prices.

These forms of data tend either to be qualitative but with relatively small expected standard deviations.

Cropping parameters

Three key parameters usually need to be measured if an agricultural development project's impact is to be monitored effectively:

- changes in cropping patterns;
- changes in cropping intensity; and,
- changes in crop yields.

Various RRA techniques have been tried to measure changes in the three parameters:

- ground transects (village walks; along irrigation bunds);
- aerial surveyor photography, including use of video cameras;
- interviews with key informants;
- the use of secondary indicators; and,
- group interviews.

Where the extent of change in cropping patterns and intensity is substantial, secondary indicators and group interviews have proved effective. However the effectiveness of all RRA techniques to contribute in this area is limited by three factors:

- Project boundaries often do not coincide with the boundaries used to assemble secondary data, or perceived by observers.
- The scale of annual changes anticipated is often small. For example a 50% increase in yield over ten years is only a 4.1% per year increase. As cropping data from a sample of farms tends to be subject to substantial variation, only data from a large random sample is ever likely to provide data to a degree of accuracy that could reliably trace such small trends.
- Short-term factors tend in any case to disguise trends of change of this magnitude. Short term relative price variations and climatic fluctuations can cause blips in cropping pattern and yield trends which are far larger than the 'expected' 5% or 10% annual average increase.

The use of diagnostic surveys

Diagnostic surveys have been shown to make a substantial contribution to improving M&E programmes, both at the outset of project activities (to better define existing conditions and needs) and during implementation to permit enquiries into problems identified by project management, by project technical staff or by the M&E unit itself.

The advantages of Diagnostic surveys include:

- allowing the scope of periodic surveys to be reduced, thus accelerating the process of data processing and reporting;
- adding flexibility to the PBME programme;
- drawing the M&E staff closer to other project staff; and,
- improving the motivation of M&E staff.

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• Using RRA to evaluate NGO projects

Background

The early 1980s saw a rapid increase in the level of support provided by the EEC to NGOs under its programme of Small Development Projects. This expansion took place in a largely ad hoc fashion, without any real overall sense of direction or priorities. In 1984, I was asked to work with a small team of consultants which would review what had been achieved, and suggest cleared guidelines for future action. Our first major task was to design and test an evaluation system which would reflect the distinctive objectives of NGOs. This was then to be used in some 30 individual investigations, from which more general conclusions could be derived.

The system we devised was strongly influenced by ideas about RRA current at that time. If the exercise were to be repeated today, it would almost certainly be modified to take account of more recent developments. But although somewhat dated, the experience may

still be instructive, since accounts of the use of RRA for evaluation, as opposed to identification, remain comparatively rare.

General parameters

We took the EEC's existing 'general evaluation criteria' as our point of departure, developing these in three particular directions to reflect what we took to be central NGO concerns.

In the first instance, an attempt was made to go beyond conventional pre-occupations with inputs, outputs and immediate effects to look, in more detail than usual, at impacts. In the case of a project designed to increase production, for example, analysis would not be confined to identifying increased income, but would aim to explore how this was allocated between different types of expenditure, and at the consequences following from this for those providing the goods and services consumed; as well as for the future prospects and well being of the household itself.

Secondly, provision would be made to look at who was capturing any benefits arising, with particular emphasis being placed on the implications for women and the poorer inhabitants of areas in which activities were located.

Thirdly, the analysis would extend beyond direct material outcomes to explore institutional developments. A number of dimensions were to be considered here, including:

- the viability of the structures created for the implementation of the project itself;
- the consequences of participation for the weakening or strengthening of the existing external relationships of those households taking part; and
- the effect on relationships within the household.

The approach

To illustrate what this entailed, I shall use the example of the preliminary study of an irrigation tank renovation project in Sri Lanka, for which I was responsible. This was

administered by the Sri Lankan National Freedom from Hunger Campaign Board (FFHC), and was jointly funded by the German freedom from Hunger Campaign and the EEC. I was given 16 days for data collection analysis, followed by a further 14 days for report writing. I was assisted in the field by a Sri Lankan anthropologist, who worked half time, and a member of the FFHC staff who was available throughout the initial period.

In outline, the material required was divided into three broad categories:

- the context or environment;
- the project system; and,
- the impact.

Presented in the broad sequence in which they were used, the methods employed for data collection included:

- analysis of secondary sources (including project records);
- interviews with project staff;
- direct observation and mapping;
- key informant interviews with local leaders and officials;
- separate group interviews with male and female participants; and,
- household case studies with male and female interviewees.

The content of individual categories and the ways in which they were explored may now be considered in more detail.

The project context

The particular objectives guiding the exercise led me to devote a greater proportion of the total time available to the investigation of context than is customary in project evaluation. This was an essential pre-requisite for the subsequent identification of the changes arising in 'external' social and economic relationships. In view of the increasing number of factors, deriving from beyond the project itself, which come into play as one moves further down the chain of impacts, this was also important as an aid in isolating project impacts from other changes taking place during the same period of time.

The context was treated as a matrix of possible influences (Table 1). Four areas of investigation were identified along one axis, and four different levels, at which each could be explored, were set out along the other. Entries in individual boxes in the figure provide examples of the types of data collected. The amount of time devoted to different aspects of the context increased moving from the left of the matrix to the right.

The national level was reviewed almost entirely from secondary sources, and was relevant primarily as a means of assessing potential replicability. The physical environment of the project area was explored mainly through a series of walks, which were undertaken during the first two days in the field. The structure and evolving nature of production activities, and of economic, political and social relations at the area level, were explored initially through key informant interviews with leading male and female residents. Findings were then checked in subsequent semi-structured group interviews. Some groups only involved women, and these

were used as the primary source of information about intra-household relations.

The project system

Although the context precedes the project system in the formal presentation of the methodology, logistics dictated that there should be a considerable degree of overlap in the way in which they were investigated in practice. Enquiries started here with initial interviews with project staff, combined with inspection of project records. These were used to construct a preliminary picture of overall objectives; to capture basic input/output relationships and to understand the strategy for building the institutions which would be required to implement the project and sustain activities in the post-project period. Preliminary impressions were then fleshed out in the group interviews, where it was possible to look in greater depth at the sequence of events in individual instances, starting with group formation, and working through the tank construction phase, to the provisions made subsequently for the organisation of irrigated agriculture.

Table 1. The project context

	Nation	Project area	Community	Household
Physical Environment	Climate	Topography		
Production and Economy	Irrigation policy	Production relationships	Asset distribution	M/F division of labour
Power and Authority	Relevant ministries	Local government	Leadership	Decision making
Social system	Ethnic composition	Ethnic composition	Kinship	

The project impact

The group accounts of the functioning of the project system, and especially of the manner in which the problems encountered had been overcome, led automatically to an appreciation of key institutional impacts. The women's groups provided additional insights into transitory and enduring shifts arising in the division of labour within households. Finally, the interviews also served as a medium for identifying the general types of impacts arising for individual households, which were then taken as hypotheses to inform the detailed case study interviews which completed the investigation.

Six households were used for this purpose, selected on the basis of quality of housing, to represent the upper, middle and lower points in the economic spectrum from which participants were drawn. In a series of interviews taking some three to four hours in all, questions were asked about: land holdings; production activities and relations; exchange relations (i.e. trade, loans and debts); patterns of consumption; patterns of expenditure; patterns of investment and health. In each instance, an attempt was made to establish the situation prior to the start of the project, to compare that with the present, and to account for any differences which might have arisen.

The comparative aspects were dealt with through closed questions, whilst those exploring causes were open-ended. Where possible, and where it appeared likely that understandings and interpretations would diverge along gender lines, both male and female informants were interviewed, although in some cases the absence of the household head made this impossible.

In the course of exploring what, for the most part, may appear to be a rather narrowly economic range of issues, the format in fact yielded a considerable amount of data on institutional change. Increased food production was shown, for example, to reduce purchases and lessen dependence upon traders. Similarly, increased opportunities for productive work on participants' own land reduced the need to seek

work on large farms in the neighbourhood, and improved their bargaining position vis a vis their employers. Increased incomes created opportunities for ceremonial expenditures, which, in turn, contributed to the creation of a sense of community where little had previously existed, and so forth.

Limitations

What has been described is an attempt to deal with a relatively complicated set of questions in a comparatively short period of time. Wherever possible, different methods and different types of informant were used to counteract the dangers of bias and false inference. To this extent, the approach corresponds to RRA as it is currently practised. But readers will have no difficulty in recognising points at which it could be strengthened.

Diagrams could have been used at an early stage as a means of representing key aspects of the project environment, and of confirming or refuting hypothesised relationships with informants. Wealth ranking would have sharpened our perception of economic differences and probably lead to a more satisfactory selection of case study households. A final meeting to report back on major findings would almost certainly have uncovered errors and revealed significant relationships and changes, which had not hitherto been apparent.

It is difficult to see how these modifications could have been made without some net addition to the time required to conduct the exercise, although this would not necessarily have been very large. This, however, could probably have been justified in the light of the improved quality in the data obtained - especially in view of the fact that this was a pilot exercise for a much larger intended programme.

One other limitation should also be noted. Although the approach was applied to reasonably good effect in the case described, it was hardly used at all in the 30 follow up studies which constituted the major data collection part of the overall programme of

work. A number of factors which have no bearing on the present discussion were partially responsible for this omission, but even when these are allowed for, it became abundantly clear, in retrospect, that a manual, by itself, cannot even come close to providing a sufficient basis for the introduction of a new system of evaluation.

Significant advances can only be achieved where the basic text is brought to life through various forms of 'hands on' experience. At the very least, this requires the kinds of workshops with which RRA is now increasingly associated, but which have yet to gain widespread acceptance in the project dominated procedures of the larger agencies. Ideally, it would go beyond this to encompass a process of field testing, followed by modification in the light of experiences. This point needs to be made even more strongly in relation to the more innovative self or participatory forms of evaluation in which NGOs are now showing an increasing interest.

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