

## Editorial

This issue of RRA Notes returns to the normal format after the gloss of issue 13. It contains eight articles and a review of the returned readership surveys. Gerry Gill makes an important contribution to the reliability and validity concerns over data collected in PRA and RRA work. He compares rainfall information supplied by farmers in Nepal with 'real' data of meteorological stations, and concludes that the farmers' information represents a remarkably good approximation. Moreover, the meteorological station data took 20 years to collect but, although the farmers' knowledge probably took as long to analyse and amass, it only took a matter of 45 minutes to present.

Alice Welbourn describes the value of mapping and seasonality analyses for exploring intracommunal differences in Ghana, Sierra Leone, Malawi and Bangladesh. This approach has important lessons for development projects. It also is a powerful tool for training and encouraging attitude change. Ejigu Jonfa and his colleagues support this by describing how they encouraged groups of men, women and children in Ethiopia to produce map-models of their village. Once again, the differences in perception as well as what was intentionally omitted or emphasised by the different groups was illuminating.

Anil Shah and K Chandramouli then describe the innovative use of very simple techniques during fieldwork in India. Anil Shah's shoulder tapping shows the importance of inducing attitude change in a non-threatening manner. Interestingly, at a recent workshop in Kenya (November 1991), Ministry of Agriculture staff producing team contracts before fieldwork independently suggested shoulder tapping as a means of ensuring individuals don't dominate, lecture or ask leading questions. K Chandramouli's contribution is significant for all agencies involved in identifying and providing support to the poor. The pass-the-pen approach is non-threatening and clearly effective. As he

concludes, the happiest amongst the officers present was the Mandal Development Officer as the exercise had gone so smoothly in a normally conflict-ridden village. The unhappiest were the 6 police constables, who had no work to do.

Jennifer Sutton and Blair Orr describe the use of the school essay method as a means of learning from school students about their and their families' perceptions and views of latrines. The ninety essays contained 535 separate likes and dislikes. In a theoretical piece, James Fairhead describes some precautions and hints for investigators concerned with understanding farmers' management of crop health. He describes the importance of distinguishing between different sorts of explanations, particularly with an eye for the socio-political context.

The final article is a model of how to report on a PRA. Somesh Kumar and A Santhi Kumari employ the diary approach to describe their work in an Andhra Pradesh village earlier this year. It represents a journey, with ups and downs, both for outsiders and villagers. It also gives many detailed tips for those interested in learning the lessons of working in the field.

The final article is the review of the RRA Notes Readership Survey. In April this year we sent out 850 yellow survey forms with Issue No. 10. We had received 185 returns by the end of October. The extrapolated readership is currently 6090 people in 65 countries. We present the details of the findings, together with a selection of quotations from the reports.

Two important issues have arisen. Shall we charge for a subscription for readers in the north for RRA Notes? Readers in the north are less likely to share RRA Notes with colleagues; they also have access to foreign exchange. The second relates to a review of the mailing list. As many people may have moved, and others not find RRA Notes useful,

we are asking all readers to complete the renewal notice appended to the end of this issue. Those readers who completed the yellow forms are exempt. Their names have already been put on the new list. So,

PLEASE FILL IN THE RENEWAL NOTICE  
IF YOU WISH TO CONTINUE RECEIVING  
RRA NOTES

Many thanks

- **Jules Pretty**, International Institute for Environment and Development, 3 Endsleigh Street, London WC1H ODD, UK.

## 1

**"But how does it compare with the real data?"**

Gerard J Gill

**· Introduction**

Every RRA/PRA practitioner or educator must be familiar with this type of question, although as a symptom it was, I believe, first described by Robert Chambers. What is not always clear is the condition of which the question is symptomatic. At one end of a possible spectrum it may simply represent a challenge to RRA methodology, reflecting an understandable sense of unease as to whether this radical departure from conventional methods also signifies a move away from rigour and accuracy. At the other extreme, however, there is a worry that the question is symptomatic of a rather deep and disturbing malaise: an unwillingness to accept as 'real' knowledge the insights and analyses (as distinct from mere primary data provided in response to enumerators' questions) of unschooled rural people.

I recently had the opportunity to address the question in one specific context after an RRA training workshop which our program organised and Robert Chambers and Jimmy Mascarenhas of MYRADA conducted in western Nepal<sup>1</sup>. During an exercise in seasonality diagramming, farmers were asked

---

<sup>1</sup> Jimmy is a Programme Officer with MYRADA, a Bangalore-based voluntary agency which has come to the forefront in developing participatory learning methods in recent years. I am extremely grateful to Jimmy, Robert and the workshop participants for the basic RRA information provided. Lorna Campbell did an excellent job in pulling together much of the information the Workshop generated in the form of a slide-audio training module entitled Participatory Rural Appraisal for Nepal: Concepts and Methods. Any faults or misconceptions in the interpretation of this information are my own responsibility.

to describe the normal monthly rainfall pattern of their area by constructing bar charts on the ground with the help of materials readily to hand. As requested, they laid out stones to represent the months of the Nepali calendar (the Bikram Sambat), and then used maize grains to indicate the number of rainy days in each month and straws of different lengths to represent the relative volume of rainfall in each<sup>2</sup>.

Lumle Regional Agricultural Research Centre (LRARC) lies about five kilometres from Maramche, the village where this seasonality diagram was constructed<sup>3</sup>. The Centre has reliable daily on-station rainfall (and other meteorological) data stretching back twenty years. This constitutes an invaluable resource for this particular study, permitting, as it does, comparison between the farmer-supplied information on rainfall patterns with scientifically-collected meteorological data. Triangulation through the use of secondary

---

<sup>2</sup> Like many other calendars, the Bikram Sambat has twelve months of approximately equal length. The year begins in mid-April, so that months run from mid-month to mid-month in the western calendar. There are 365 days in a year, and provision month is not fixed, but determined each year by astrology: any month can have between 29 and 32 days. This makes for difficulty in comparison with a calendar, such as the western one, which is calculated differently. (There are also local variations in the transliterations and spellings of the months shown in Figure 1).

<sup>3</sup> I wish to record my thanks to Director and staff of LRARC for their unstinting co-operation in both the conduct of the RRA Workshop and the provision of the meteorological data on which this paper is based. LRARC is constituted under Nepal's National Agricultural Research Centre and has been supported since its inception by the UK Overseas Development Administration.

data is, of course, an established part of the RRA practitioner's tool kit. But seldom can such a rich seam of reliable, detailed and long-term secondary data have been available so close to an area where an RRA exercise has been conducted.

Before beginning to compare these two data sets, however, one fairly basic question must be answered.

- **What makes a REAL rainy day?**

Since both sets of data record two separate measures of rainfall (volume of rainfall and number of rainy days) it should theoretically be possible to compare both. However, there are practical problems with the latter. In particular, there is the definitional problem of what exactly constitutes a 'rainy day'. According to the LRARC agro-meteorological station (henceforth 'the met. station') figures, even 0.1 mm of rainfall makes a rainy day, but mere breath of moisture such as this will scarcely impinge upon human consciousness. Yet any other dividing line will inevitably be arbitrary and open to challenge.

Even if this difficulty could be overcome to general satisfaction, there is another problem: seasonal variation in perceptions. Rain, like all other phenomena, is inevitably viewed by people (as distinct from instruments) within a subjective frame of reference. In this particular case, the same person may perceive  $x$  millimetres of rain as a 'rainy day' during the dry season (because it is unusually wet for that time of year), but as a 'dry day' during the rainy season (because it is unusually dry for that season), so that cross-seasonal comparisons are problematic. In view of this it was decided to concentrate the present analysis on volume of rainfall only.

- **What is the REAL rainfall pattern?**

Figure 1 presents the farmers' perception of the 'normal' pattern of monthly rainfall

volume. This was made by sketching on graph paper the pattern of straws which they laid out on the ground to represent volume of rainfall in each month. Figure 2 shows the means of monthly rainfall recorded at the met. station over the twenty-year period preceding the study. In this second diagram the year has been arranged to run from April to April in order to synchronize it as far as possible with the months of the Nepali year used by the farmers. Moreover the same horizontal is used on both diagrams, and the months on Figure 1 have been aligned with the gaps between the months in Figure 2 (since the months on Bikram Sambat run from mid-month to mid-month on the Western calendar), so that direct 'eyeball' comparisons should be relatively easy. In the case of the vertical scales, although the met. station data are reported in absolute values (mm), it is obviously possible for the eye to interpret these figures in purely relative terms, and so further facilitate comparison with Figure 1.

This comparison is intriguing. The figures on the main, monsoonal, rainfall period (June to September) are broadly consistent, something that can be seen despite remaining synchronization problems arising from the different timing of months in the two calendars. Certainly if the met. station data can be said to represent objective reality, the farmers' data are close enough to this for all practical (agricultural) purposes. In contrast with this, the situation in the late winter/early springtime period is obviously very different, with the farmers' secondary peak sticking up like some minor Himalayan pinnacle above the gently rising lowlands of the met. station figures. The remainder of this paper will largely concentrate on this winter/spring season, particularly the month of Falgun, in which the farmers placed the apex of the secondary peak, and, as a context for this, the two months on either side of it, Magh and Chaitra. Some attention will also be paid to the month of Paush, which precedes this trimester, for the reasons that will be explained later.

Figure 1. Farmers' 'normal' monthly rainfall pattern

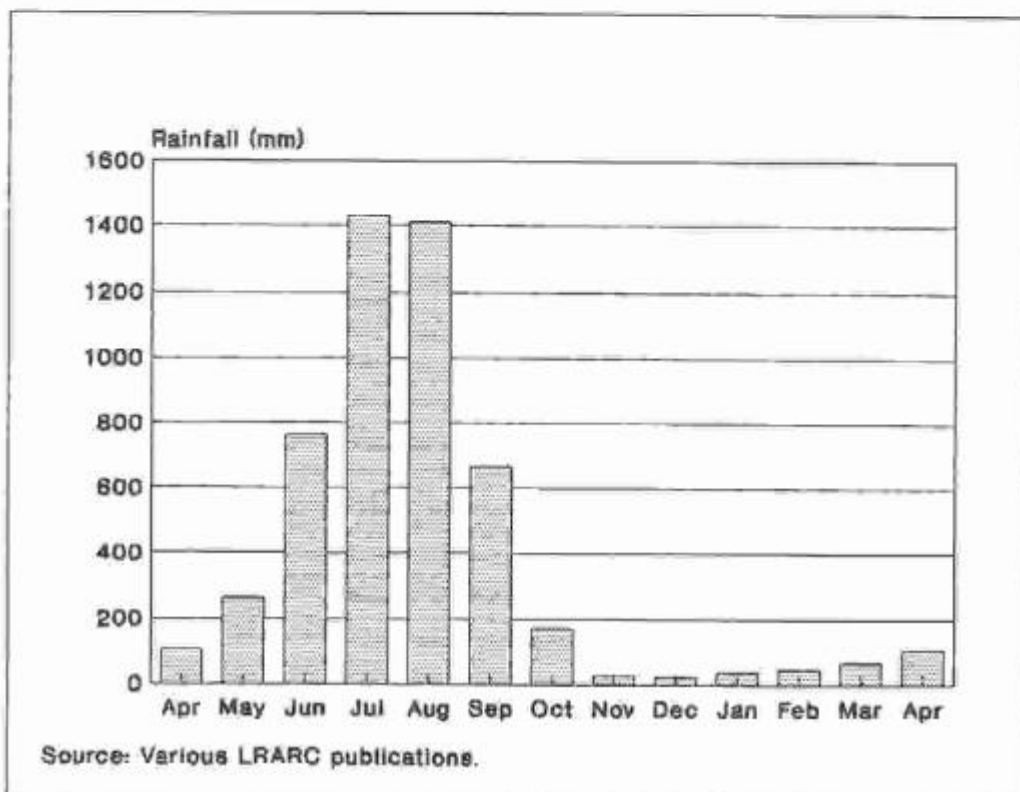
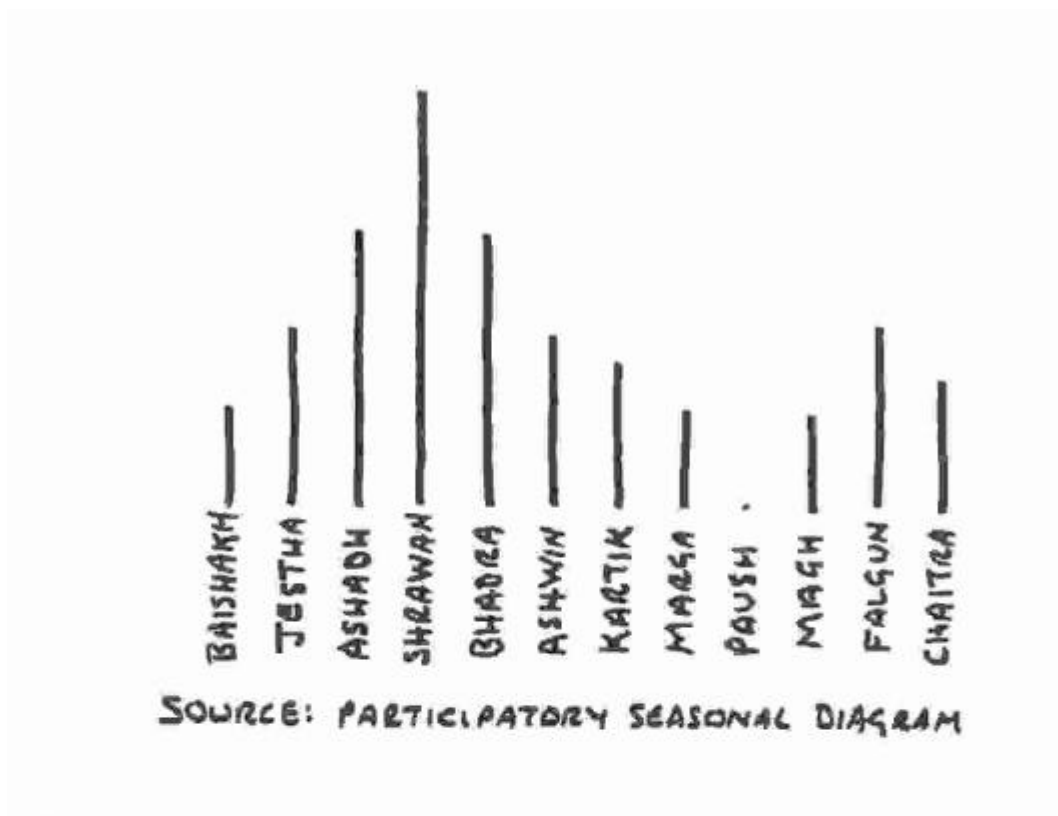
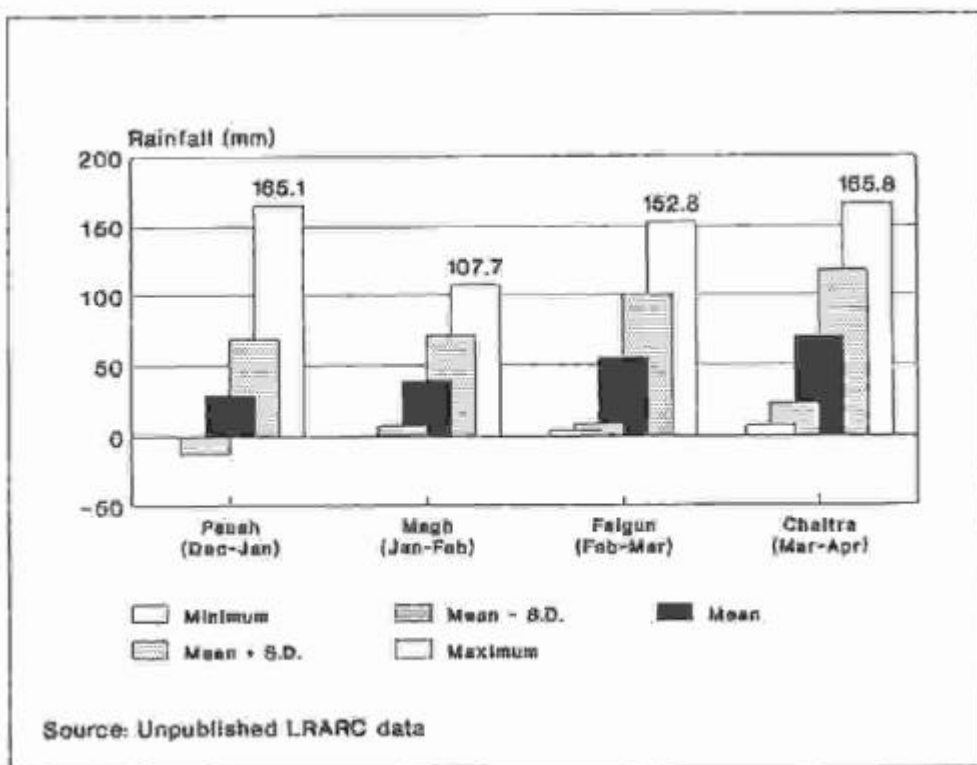


Figure 2. Met. Station's mean monthly rainfall figures (1970-1989)

**Figure 3. Monthly rainfall at Lumle, Paush to Chaitra 1970-1990**

As a first piece of rough-and-ready triangulation, scientists at LRARC and at the Institute of Forestry in the nearby town of Pokhara were asked whether the basic rainfall distribution of their area was unimodal or bimodal. Every one replied that it was bimodal. Some added that this was what allowed the farmers to take a crop of spring maize. They were therefore intrigued to be shown the above diagrams and to learn that the 'real' data contradict their, as well as the farmers', perceptions.

The first step in the proper analysis was obviously to get rid of the complication of having to use two different calendars. This was done by going back to the Centre's unpublished daily rainfall data and re-aggregating these in accordance with the months of the Bikram Sambat. Figure 3 shows the results. Note that in terms of monthly means, the re-aggregation does nothing to upset the pattern shown in Figure 2, namely one of slowly rising monthly figures from December to April with no sign of a secondary peak. The other statistics in Figure 3, however, show that these overall averages hide a great

deal of year-to-year variability. In one case, the month of Paush, the standard deviation (S.D.) is actually greater than the mean (hence the one silly-looking negative value), while in the other months, mean and standard deviation are nearly equal. The minimum-maximum ranges are correspondingly large. This is particularly true of Paush, whose huge maximum value springs from the fact that the two heaviest daily rainfall levels ever recorded in Paush occurred in the same year.

Turning to the main period of investigation, the Magh-Falgun trimester, the daily rainfall data (Figure 4) indicate not only the extent of intra-year variability in monthly rainfall distribution (note the differences in scale comparing the four segments of this figure), but also the fact that (a) the timing of rainfall within a month shows no very obvious pattern, and (b) the relative raininess of the three months of the trimester varies very significantly from year to year. This last point can be seen rather more clearly when the daily data are aggregated into monthly totals, as in Figure 5.

Figure 4. Daily rainfall at Lumle, Magh-Chaitra

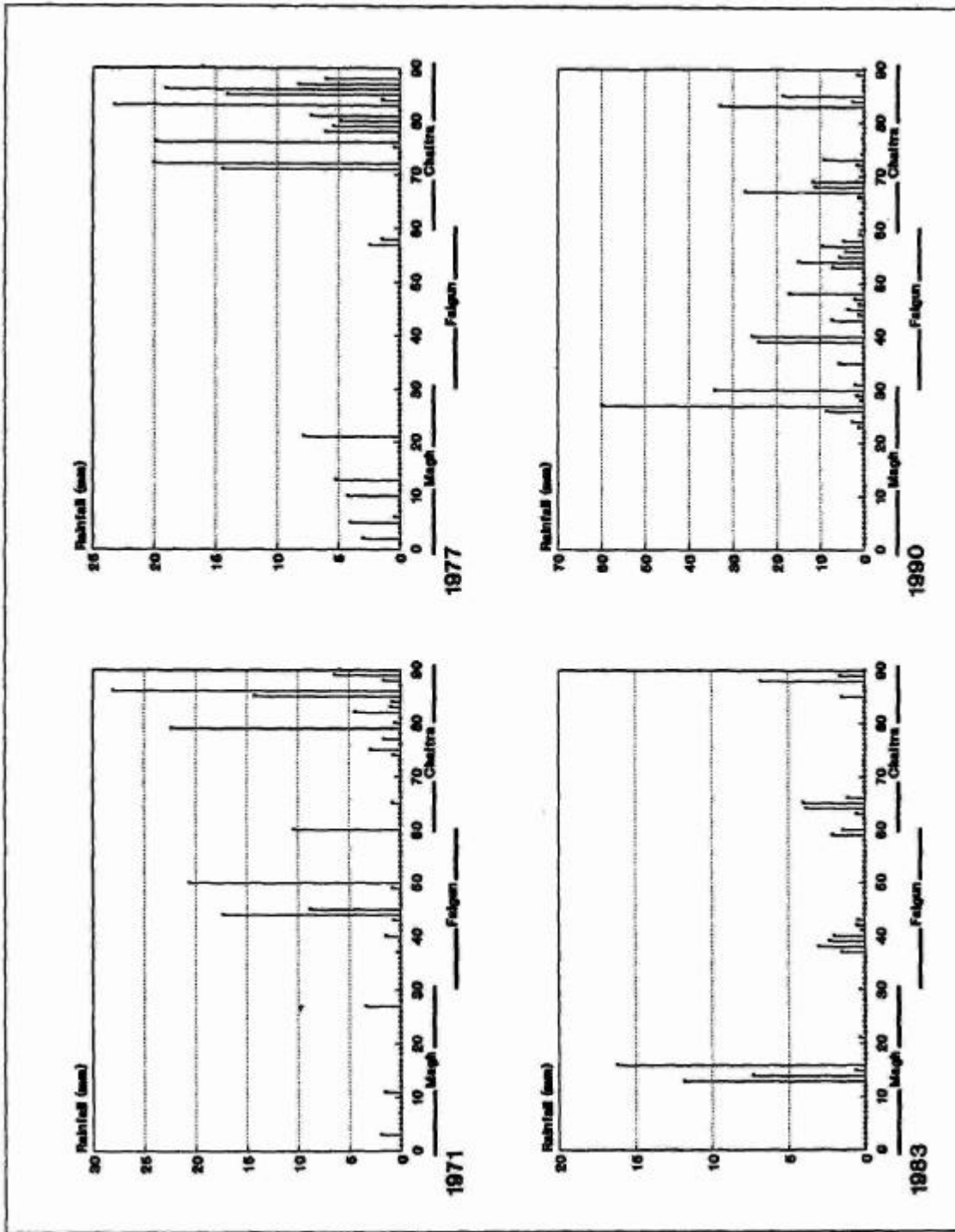


Figure 5. Examples of four basic trimestral rainfall patterns at Lumle  
 Source: unpublished LRARC data

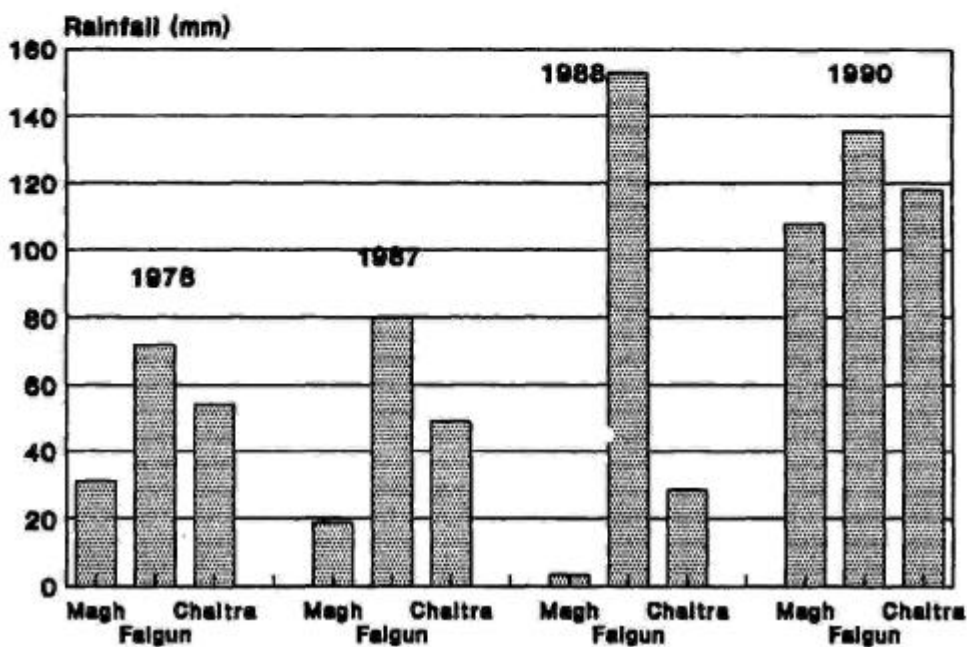
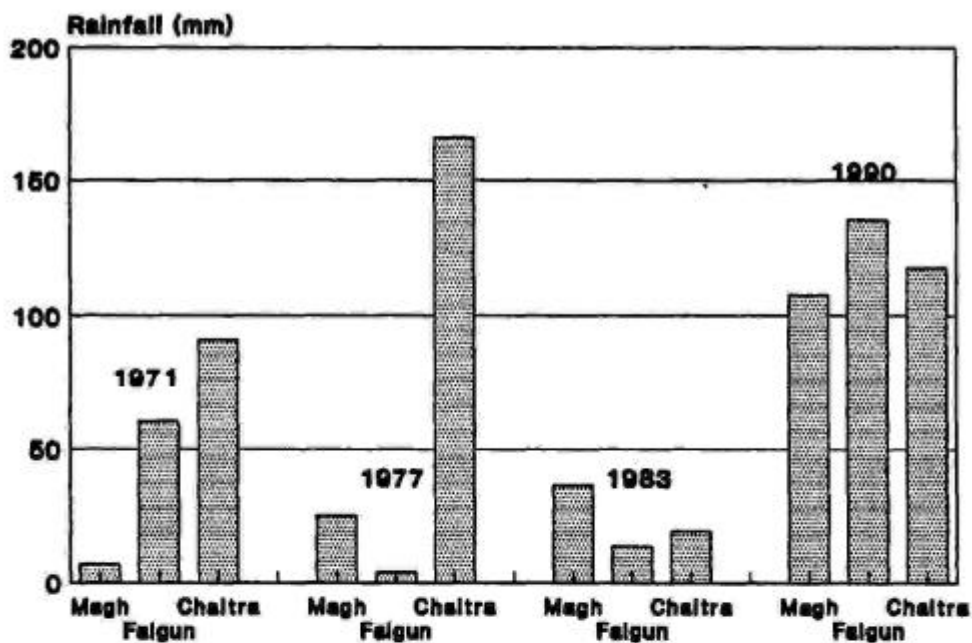


Figure 6. Inter-year variation within the same trimestral rainfall pattern  
 Source: unpublished LRARC data



In view of space limitations, the figures for only four years have been presented in these last two diagrams, but these are not unrepresentative of trimestral rainfall distribution across the other sixteen years. The four that were chosen were selected because they illustrate four of the most common patterns that were found. (A 'pattern' here is identified in the same (relative) terms that farmers were asked to use to identify them. Thus, for example, the 1971 pattern is that rainfall in Chaitra exceeds that in Falgun, which exceeds that in Magh. In shorthand form: {Chaitra > Falgun > Magh}).

In addition to variation between basic trimestral patterns, there is also considerable variation in relative volumes of rainfall within years having the same pattern. This is illustrated in Figure 6, which looks at four years conforming to the pattern {Falgun > Chaitra > Magh} - the one reported by the farmers as being the 'normal' one. In 1988 the Falgun peak is extremely marked, in 1990 it is relatively small, while in the other two years it is moderately pronounced. This again illustrates the complexity of the data set we are dealing with and the difficulty facing farmers (or anyone else) attempting to summarise it within a two-dimensional construct.

When the daily data for all twenty years are aggregated by year and by month, six patterns emerge, as shown in Table 1.

Looked at in this light, one begins to see a possible explanation for the apparent discrepancy between the farmers' data and those of the met. station: each series uses a different measure of central tendency when summarising the underlying frequency

distribution. Both are equally legitimate, though. The met. station reports, in giving the arithmetic mean, present the most familiar of these measures. The mean has considerable merits as a summary statistic, but it is also a purely abstract measure of central tendency and need not necessarily occur in any year in a given time series.

It would therefore be misleading to describe the mean as being in any sense 'normal' or 'typical' of the series. The best measure of 'normality' or 'typicality' is the mode, i.e. the most frequently-occurring single value, or set of values, in the distribution. The above table shows that there is a tie for mode in the series in question, with two patterns each occurring six times over the twenty years. But why have the farmers chosen pattern (1) rather than (2), since both are equally common over the period?

Of course as far as the farmers' perceptions are concerned twenty years is a quite arbitrary figure - simply the period for which met. station figures are available. The farmers' time horizon(s) may be longer or shorter than this. Given the variability and complexity of the actual year-to-year, month-to-month and day-to-day figures, however, it is difficult to believe that farmers really remember patterns longer than twenty years ago. Or, if they do have some recollection of them, it is hard to believe that these memories figure as prominently as more recent ones in the intuitive calculations that must lie behind the farmers' reports of what is 'normal' or 'typical'. If we look at the years in which the two modal patterns occurred over the past twenty years, the picture is as shown in Table 2.

**Table 1. Six basic spring rainfall patterns at Lumle**

Pattern	Frequency
1. (Falgun > Chaitra > Magh)	6 occurrences*
2. (Chaitra > Magh > Falgun)	6 occurrences
3. (Magh > Chaitra > Falgun)	3 occurrences
4. (Chaitra > Falgun > Magh)	2 occurrences
5. (Falgun > Magh > Chaitra)	2 occurrences
6. (Magh > Falgun > Chaitra)	1 occurrence

\* Pattern reported by the farmers

**Table 2. Occurrences of the two modal spring rainfall patterns at Lumle**

Pattern	Years
(Falgun > Chaitra > Magh)	1970, 78, 87, 88, 89, 90*
(Chaitra > Magh > Falgun)	1974, 77, 79, 81, 84, 85

\*Pattern reported by the farmers

Here, then lies the most convincing explanation of the apparent discrepancy between met. station figures and those reported by the farmers. The pattern reported by the farmers as 'normal', occurred not only in the year of the study (which was conducted in the middle of Baisakh, the month after Chaitra) but also in each of the three preceding years, whereas the other 20-year modal pattern has not surfaced since 1985.

One last point has to be addressed before leaving this section, namely the large discrepancy in the relative size of the two rainfall peaks, comparing the farmers' diagram with the met. station data. While the former shows the late winter/early spring peak as being just under half the level of the monsoon peak, the latter figures show that, even in the year of heaviest falgun rainfall over the twenty-year period, the volume of rain in that month was only a tenth of that in the peak monsoon month, Shrawan.

Again one has to understand such an apparent discrepancy in context, for no-one in their right mind would seriously suggest that winter/spring rainfall patterns could approach summer levels in a monsoonal climate like Nepal's. It was suggested earlier that rainfall is viewed by people within a particular, subjective, frame of reference. While the met. station figures show rainfall as a purely meteorological phenomenon, farmers undoubtedly view it in relation to agriculture. The monsoon crop is paddy, a very water-demanding, flood-tolerant crop. In the winter-spring season, however, cropping patterns are dominated by crops like wheat, maize, buckwheat and mustard, all of which have much lower moisture requirements than paddy. If, therefore, one interprets the farmers' diagram in terms of adequacy of rainfall for agricultural purposes, the relative size of the two peaks in Figure 1 becomes readily understandable.

### • Is there a REAL longer-term pattern?

At least as far as formal scientific investigation is concerned, James Rennell, eminent geographer of his day, first Surveyor General of Bengal, author of A Bengal Atlas (1779) and Memoir of a Map of Hindoostan (1783), was probably the first person to try to discern long-term patterns in the macro-climatic conditions of South Asia. At about the same time as he published the above seminal works, Rennell investigated a hypothesised relationship between annual rainfall cycles and the occurrence of sunspots. He did so in the hope of being able to forecast likely famine conditions in Bengal, but was disappointed, as others have been since. Efforts still continue to try to identify forecastable climatic patterns in the subcontinent, for similarly useful and laudable ends, but without any definitive conclusions having been reached.

It may come as a surprise, therefore, to learn that the farmers of Maramche village in the hills of western Nepal claim they can discern a cyclical pattern in the climate of their own area. They reported that once in five years the pattern was different from that shown in Figure 1. In these atypical years, they reported, there can be both rain and snow in month of Magh, and a considerable amount of rain in the month of Paush (compared to none in a normal year)<sup>4</sup>. Unfortunately the available met. station data do not include snowfall, so it is not possible to validate this part of the claim. This validation can be attempted only for the rainfall figures for Paush.

<sup>4</sup> The area lies at a latitude 28 18' North and an altitude of 1, 642 metres (5,387 feet) above sea level, so that there is a pronounced winter season and a distinct possibility of snow during it.

Figure 7 shows Paush rainfall levels, as recorded by the met. station, over the past twenty years. First, as regards the farmers' assertion that there is no rainfall in a 'normal' (for which again read 'modal') Paush, the met. station data substantiate this. In six of the twenty years no rainfall was recorded in Paush, while in at least five other years the level was so low it can be dismissed as insignificant.

As an aid to investigating the more important claim that there is a once-in-five-years pattern of heavy Paush rainfall, Figure 8 re-arranges these same data in ascending order of volume so as to make it easier to recognize any natural 'breaks' in the time series. Two such 'breaks' seem to manifest themselves. The most obvious is that between the highest year, 1988-89, and all the others. This will be examined at later. The other 'break' is that between the 43 and 66mm levels. This represents a 'jump' of 23mm, which compares with the next-highest 'jump' of only 9mm. Using a figure within this 43-66mm range - say the 50 mm level - as the dividing line between a heavy rainfall Paush and a light rainfall Paush would indeed give a picture of one year in five having abnormally heavy Paush rainfall, but such a rainfall level does not occur with any degree of regularity over the two decades. It would, of course, be foolish to expect anything like clockwork regularity in such patterns. All that one could reasonably expect would be a reasonably accurate statement of general tendencies. The question is whether there is sufficient regularity in the 'real' data for a thoughtful person to discern a pattern in a distribution such as that of Figure 7.

Several points should be made at this juncture. First the information given by the farmers on the 'normal' year has held up very well under examination, even when at first sight it appeared to be completely at odds with the met. station data. Second, the information about the once-in-five-years pattern was

volunteered: no-one asked about patterns over a period longer than a year, or about anything other than a 'normal' year. A question that should be asked here, therefore, is whether a group of farmers, having put considerable effort into providing credible information about rainfall patterns in a 'normal' year would suddenly leap into the realm of fantasy and start making up stories about 'abnormal' years.

One way of looking at the data in Figure 7 might be to forget about 'natural breaks' and look instead at Paush rainfall figures over successive triennial periods during the two decades for which met. station data are available, looking for periods in which two dry Paushs 'sandwich' an unusually wet one. Several such triene can be seen - although, of course they do not occur exactly every five years. The most pronounced such period, also the recentmost one, is that spanning the period 1987/88 to 1989/90, when the twenty-year maximum in Paush rainfall was 'sandwiched' between two fairly dry ones. This again may be a question of perspective, with recent events tending to overshadow more distant ones.

All of the above, unfortunately, must remain in the realm of speculation. Had snowfall data been available from the met. station, one could have tested for a statistically significant association between the occurrence of snow in month of Magh and volume of rainfall in Paush. It will be a fascinating exercise now to go back to the farmers, armed with the results of the above analysis, and probe more deeply into the perceptions it seems to have uncovered - particularly those regarding the perceived once-in-five-year pattern. Such an iterative process is, of course, a crucial part of RRA. Unfortunately, in the absence of scientifically-collected data on snowfall, such iteration, while constituting a valid part of the continuing RRA process, will not serve the purposes of the present exercise.

Figure 7. Paush (mid Dec – mid Jan). Rainfall at Lumle, 1989/90

Source: unpublished LRARC data

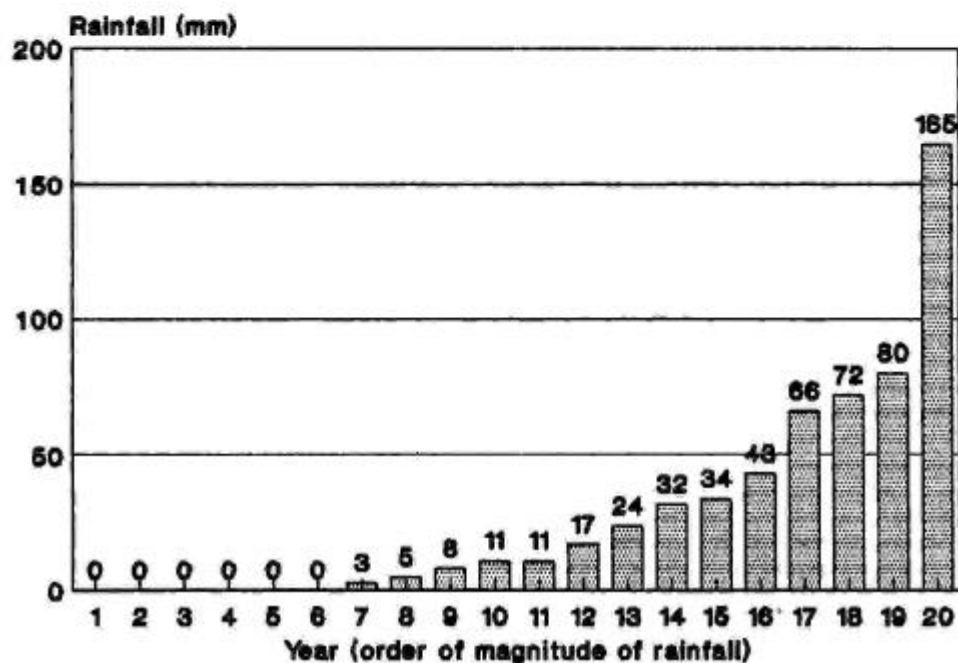
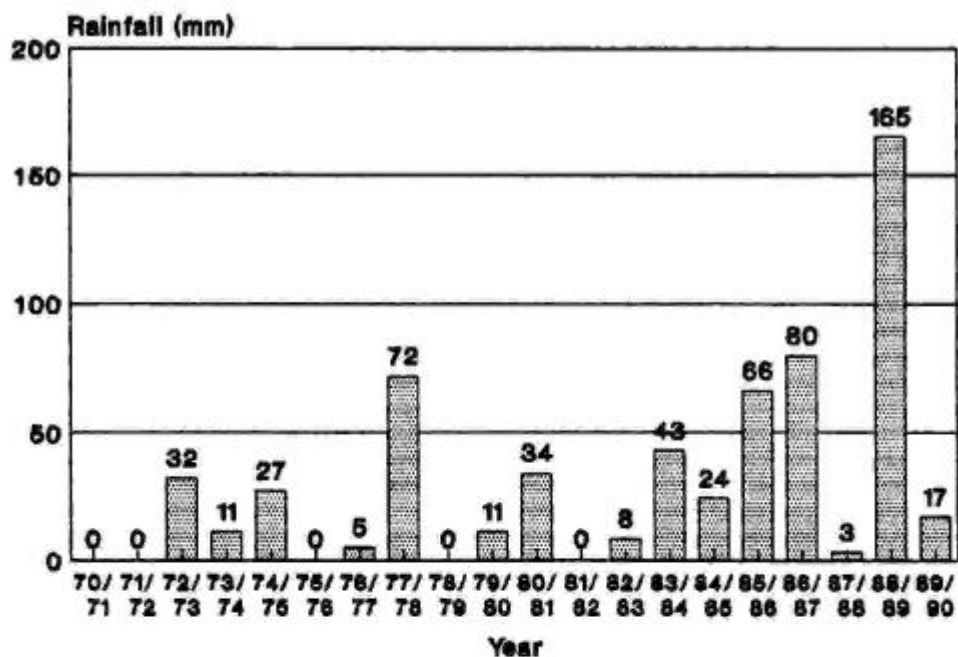


Figure 8. Paush (mid Dec – mid Jan). Rainfall at Lumle, 1970/71 – 1989/90

## • Conclusions

Returning to the question with which this paper opened, it can surely be said that, insofar as scientifically-collected rainfall statistics represent the 'real' data, then the information supplied by Maramche farmers represents a remarkably good approximation. The 'goodness of fit' between the two sets of aggregates is all the more remarkable when the following points are taken into consideration.

First, the techniques of constructing seasonal rainfall diagrams were explained to the farmers, and the information they provided subsequently recorded, not by people skilled or experienced RRA techniques, but by trainees on their first practical field exercise after only a few days of participation in the classroom. Had the exercise been initiated by those more familiar with RRA concepts and procedures, and had it been followed up by iterative and interactive cross-checking in accordance with standard RRA practice, there is little doubt that the goodness of fit between the rainfall patterns described by the farmers and that derived from the met. station data would have been greater, and that at least some of the remaining (and relatively minor) apparent discrepancies between the two data sets reconciled.

A second point regards the nature of the variable itself. Climate is an extremely complex phenomenon and people are notoriously bad at recognizing long-term patterns - or even at remembering trends or specific events - in it with any degree of accuracy. How many readers (all of course highly educated) would care to challenge this assertion by drawing a diagram similar to Figure 1 for their own area of residence and then putting their perceptions to the test by comparing them to twenty years of daily rainfall figures from the local met. station? Farmers, of course, have a much greater incentive than most to overcome this natural handicap of our species, but the degree of success with which they seem to have recognized patterns within such a highly variable and complex phenomenon is still extremely impressive. If unschooled Third World farmers have developed the analytical and communication skills to do something as

complicated as this, then one can presumably trust them to understand and accurately report on the many simpler systems that also lie within their experience and knowledge.

Finally, the met. station data took twenty years to collect and must have cost a tidy sum in terms of equipment, supplies and personnel. The information the farmers gave maybe took as long to amass and analyse, but it took a matter of only forty-five minutes to present, and cost very little in terms of outside resources. To make this comparison is not, of course, to suggest that agricultural research stations should abandon the rigorous collection of accurate long-term agro-climatological data and start fiddling about with bits of straw and maize grains instead! Accurate and highly detailed meteorological data form a vital input into many of the experiments in which such stations are engaged, but this level of precision is not needed for all research purposes. Where a high degree of comprehensiveness and accuracy is not necessary, to attempt to achieve it represents a misallocation of resources that could otherwise either have been saved, or used much more cost-effectively doing other things.

In this particular case, the seasonal rainfall diagram is most likely to be needed as a frame of reference for a discussion of the problem of seasonality (it having been demonstrated by many researchers that the problem of seasonal deprivation tends to peak during the rainy season)<sup>5</sup>. By 'stacking' monthly information on other seasonally-sensitive variables (like indebtedness, food in store, incidence of disease, temporary migration, employment, workloads, etc) under the rainfall diagram, the participants could quickly begin to home in on crucial times of year and critical seasonal problems as a prelude to identifying the most effective type, level and timings of interventions. For such purposes, a level of

---

<sup>5</sup> For a discussion of the seasonality problem, see for example, Chambers, R. Longhurst, R and Pacey, A (editors): Seasonal Dimensions to Rural Poverty. Frances Pinter (Publishers), London; and Gill, G. J. Seasonality and Agriculture in the Developing World: A Problem of the Poor and Powerless. Cambridge University Press, Cambridge, 1991.

precision equal to that of Figure 1 above would be perfectly adequate.

- **Gerard J Gill**, Winrock International Institute for Agricultural Development, PO Box 1312, Kathmandu, Nepal

NOTES

Gerard J Gill: Program Leader, Policy Analysis in Agriculture and Related Resource Management Program, His Majesty's Government of Nepal/Winrock International Institute of Agricultural Development. The usual disclaimers apply.

## 2

## RRA and the analysis of difference

Alice Welbourn

### • Introduction

There is a deeply ingrained implicit assumption amongst many development workers that rural communities are fairly homogeneous groups of people, who have similar outlooks, problems and needs. It is also assumed that female-headed households and people with disabilities are even poorer and more vulnerable than others and are in need of special help.

Neither of these statements is necessarily true<sup>1</sup>. Rural communities are rarely homogeneous and the poorest do not always have the same characteristics. RRA methods can help us to recognise these fallacies.

Over the last year I have used RRA techniques in health-related research and have conducted RRA training courses in Western and Southern Africa and in Bangladesh. Whilst the technical exercises involved in this work were similar to those widely used by RRA practitioners elsewhere, I have aimed to use RRA as a method for identifying, exploring and analysing intra-communal difference; and as a means of training development workers to appreciate the importance of this to their work. I have done this by training around 15 workers together in one village at a time. They have been divided up, so that the women

---

<sup>1</sup> Those communities which do indeed have the most socio-economic homogeneity seem to be of displaced people who are in great stress. They have been separated from their lands and traditional access to other resources and are mostly facing the same predicament. For the most part they do not then function as a 'community' per se, but rather as a group of individuals. This article concentrates instead on traditional indigenous settled rural populations.

fieldworkers have worked exclusively with village women<sup>2</sup>, the older male workers have worked exclusively with old village men and the younger male workers with young village men. All have conducted parallel exercises and enquiries and have produced similar - but contrasting - sets of results. But what is the relevance of this to development?

### • The setting

Most rural communities are made up of people connected through kinship, patron-client and other close social, economic and political ties. Within each community there are biological differences of age and sex; and these are combined with and contribute to socially defined, economic and political divisions of status, ethnic background, caste or wealth. Most communities have traditionally attributed higher status to elders and to men: older people are 'naturally' wiser because they have been alive for longer... men are 'naturally' more authoritative than women because they are stronger... wealthier people are 'naturally' superior to poorer people because that is their place in the world and they command more resources... mothers are 'naturally' superior to infertile women, because they have borne children... and so traditional authority structures were defined. 'Natural' differences were - and often still are - inextricably connected with social differences and traditional community authority structures were socially constructed around the axes of age, gender and access to material resources.

---

<sup>2</sup> Ideally, separate groups should have worked with older women and younger women - and children - but there have never been enough fieldworkers or time for this.

Just as traditional western values have recently seen great changes, so rural communities in the developing world are also in a state of flux. Old men complain that their sons no longer hold their traditional values and run after money; marital breakdown and lack of financial support for child care are becoming commonplace and the gap between rich and poor is on the increase everywhere. There has always been tension between old and young, men and women in societies. But nowadays that tension is often far greater than it ever used to be. There is never a single root cause to all problems, but much the most major one is economic pressure. As economic pressures increase, as rural communities become ever more permanently linked to the outside world and as access to health, education and other services become matters of economic wherewithal, traditional community support structures start to break down with the strain. Increasing numbers of people fall through the community safety nets.

Many development agencies are concerned about the extent to which their assistance really reaches the most vulnerable groups. Two tasks facing them are to identify which people are falling through the safety nets and then to work out if and how they can develop programmes which can effectively and sustainably ensure an improvement in their well-being. Until the complexities of intra-communal life are recognised, there will be scant chance of success with either of these two tasks. RRA techniques, however, allow us to study intra-communal difference effectively, and I draw upon various applications in Sierra Leone, Ghana, Malawi and Bangladesh<sup>3</sup>.

### • **The problem**

- Whose problems? When development workers call a village meeting, those who attend are normally the male elders, who

<sup>3</sup> The material from Sierra Leone is reproduced with kind permission of the Liverpool School of Tropical Medicine from whom the research was conducted. The material from Ghana, Malawi and Bangladesh are reproduced with kind permission of ActionAid, for whom the author conducted RRA Training courses.

are the traditionally respected village leaders and representatives. Their opinions of the village's needs are asked and the community is then considered to have been consulted.

- Who decides? When development workers plan a new school or a new health clinic, the advice of the elders whom they first met is sought and their decision is heeded.
- Who gets left out? RRA course participants in Malawi, after carrying out field work were clearly able to state from their own experience that:
  - on the whole, the richest people do not attend meetings, or show us around, because they have little to gain from us and have their own means of access to resources;
  - the poorest people do not attend meetings or show us around because they think we are not relevant to their lives and they consider themselves inferior; and,
  - people who do speak in meetings and show us around are those who have more respect and self-confidence. They present their own outlooks, problems and needs. They come from above-average socio-economic groups of the community and do not represent the needs of the poorest.

These issues are important because we may assume that we are responding effectively to the needs of all the villagers. Usually we do not.

### • **Some analysis**

The following case-study material from RRA exercises is presented to highlight four particular axes of difference in communities: age, gender, ethnic background and poverty. These are never clear-cut: in some communities one axis is more important than another. Yet it is helpful to identify each axis individually, to acknowledge its existence before returning to the whole picture.



## The relevance of age

In a preliminary meeting at the beginning of some RRA work in a village in Sierra Leone, village elders, young men and women were all asked to come together to hear about the proposed exercise. They were asked what matters concerned them about their village and some old men began to reply. As they spoke, the young men suddenly got up and walked off, complaining as they went. On being asked what was the matter, they replied: these old men never represent us or our needs - they only talk about themselves and forget about us. What's the point in our staying? We then encouraged the young men to stay, promising them that we planned to spend some time specifically with them, in order to learn about their views. They agreed to stay and the meeting resumed.

The old men in that village were talking about a new bridge to get across the river to the satellite villages where their agricultural land is, and a new mosque; the young men wanted a school and football goal posts: a classic battle between the old times and the modern.

How do the development workers decide who to help? Not by ignoring their differences. The dispute which took place was an important part of our information gathering exercise for that village. Subsequent exchanges during the map drawing exercise and other activities underlined the tension between old ways and young in this and other villages around. In my view it is no coincidence that the greatest tension was apparent in the poorest village. Development workers need to learn to be receptive to these arguments. RRA, which encourages communities to speak out and show us their village, provides us with an excellent opportunity to perceive this accelerated breakdown in community coherence.

## The relevance of gender

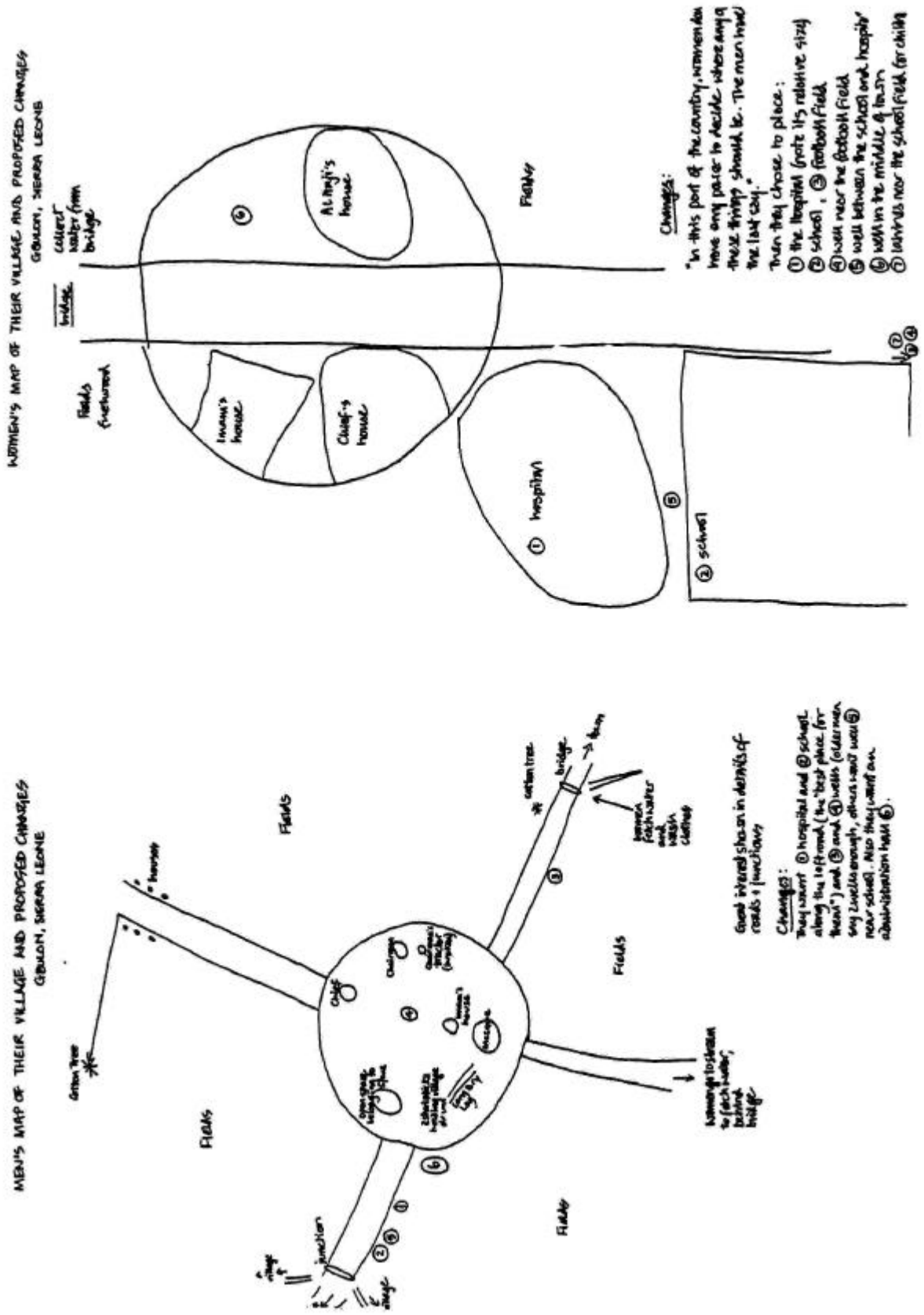
The two mental maps shown in Figure 1 are of one village, again in Sierra Leone. One is drawn by the men, the other by the women. When compared, various differences of perspective can be noticed. Men's maps, like the one below, often tend to reflect their

contact with the outside world, their public and political roles in life, whereas women's maps reflect their domestic, more private activity sphere within the community. Men's maps tend to include all the roads which lead elsewhere from their village, while women's maps concentrate more on the village centre. Men tend to identify boundaries and objects of status, such as the cotton trees (reflecting the two separate clans which make up the village - it was from this map that we learnt of this), the (broken) chairman's tractor, the village drum and so on. Women did not show any of these. When asked to mark changes which they would like to see, men marked a series of buildings, lining the route of the main road leading into the village. The buildings would look very smart, prestigious signposts to their settlement. The nearest building to the centre was an administration hall. By contrast, the women, when asked to mark changes, first explained that this was not their role: "Women do not have any power to decide where any of these things should be. The men have the last say"; but when they were encouraged to pretend, they resolutely drew a huge hospital, close to the centre and of comparable size, followed by a school and wells to serve them.

In this part of the world, women take their children to clinics, if there is one nearby; and women would be the ones responsible for their children's school fees, if they were sent at all. Yet rare is the development project which asks the opinions of those who are most likely to use such services where they would like them to be situated. In another village, much poorer than this one, when women were asked to draw changes on their map, they replied: "We can't draw changes on this map, because the kind of changes we need can't be drawn". They had been telling me about overwork, breakdown in co-wife support and beatings from their husbands. How could drawings on a map help them?

The three maps in Figure 2, from Bangladesh, lucidly illustrate both generational and gender differences. The informants live as squatters on a government embankment beside a great river which is constantly eroding its sides. Their traditional lands lie below the water and they are now landless. The young men have to resort to migrant labour for many months of the year.

Figure 1





The old men's map charts precisely the land which they consider still belongs to them beneath the wide flowing river. They live in hope that some day the river will change its course once more and they will be able to reclaim it. (Some sections of the government think otherwise.) The young men have shown carefully the tracks surrounding their settlement and have marked also the road and railway which link them to potential work in the outside world. Finally the women who barely move off the embankment have studiously plotted the individual houses and land use within the settlement.

There are no rights and wrongs about these maps: although development workers initially find it hard to agree, they soon appreciate that there is no 'best map'. Instead they come to realise that different perceptions do exist and that each is important in its own way in helping us to understand how the village functions.

Seasonal calendars are another useful way of developing different perspectives of gender roles in communities (Figure 3). Women, for instance, are often much better at identifying individual disease patterns and normally include childhood illnesses as a matter of course in their health calendars (men, as a rule, don't). Women and men can both be asked to list their specific tasks in different seasons. Women's home maintenance work does not necessarily ease up after harvest, which is when men often have more time for discussions with development workers. (Other times should then be identified to work with women.) Men are sometimes - but not always - more useful informants on sources of, or fluctuations in, off-farm income and credit.

The answer to 'who is the best informant' is rarely straightforward. Again these variations in information help the development workers to understand that they should listen to a variety of opinions: that different members of the community have different information for us, depending on their experience. It is our job to learn from them and make use of the variety of views in our work.

In some case, differences of opinion in the information we collect are particularly marked. Only to listen to one view would guarantee that a project based on it would fail. In

Malawi, for example, the women of one village did not express much interest in family planning. Some said that they would like to have a three year break between children; but others said their husband would not like them to use contraceptives and the majority said they did not mind having more children. The young men of the village said that they did not recognise a need for family planning on the basis of population, since the population of the area, as they believe, has decreased since former times and people have moved elsewhere. Nonetheless, they said they were interested in child spacing, but that it was the women who were not interested. The fieldworkers doubted the entire truth of this statement.

The old men, by contrast, perceive a real increase in population and land shortage and consider that family planning is urgently needed to help control the problem. However they say that women want to have more children and refuse to take family planning. They say that women compete with one another for children. Traditionally, if a man had more children than available land, he could ask the traditional chief to give him more land to divide amongst his sons. It would follow that a woman would be glad to have more children, because more land would then be farmed by them. Nowadays new land is no longer available and so this logic no longer applies. But, from what they said in this village, women there still appear to follow the traditional values of favouring more children. (N.B. This is in marked contrast to elsewhere in Malawi or the continent<sup>4</sup>).

<sup>4</sup> For more details on the importance of recognising differences in attitudes of men and women in respect to family planning, see Welbourn 1991 in GADU Newspank 13, from OXFAM.

Figure 3

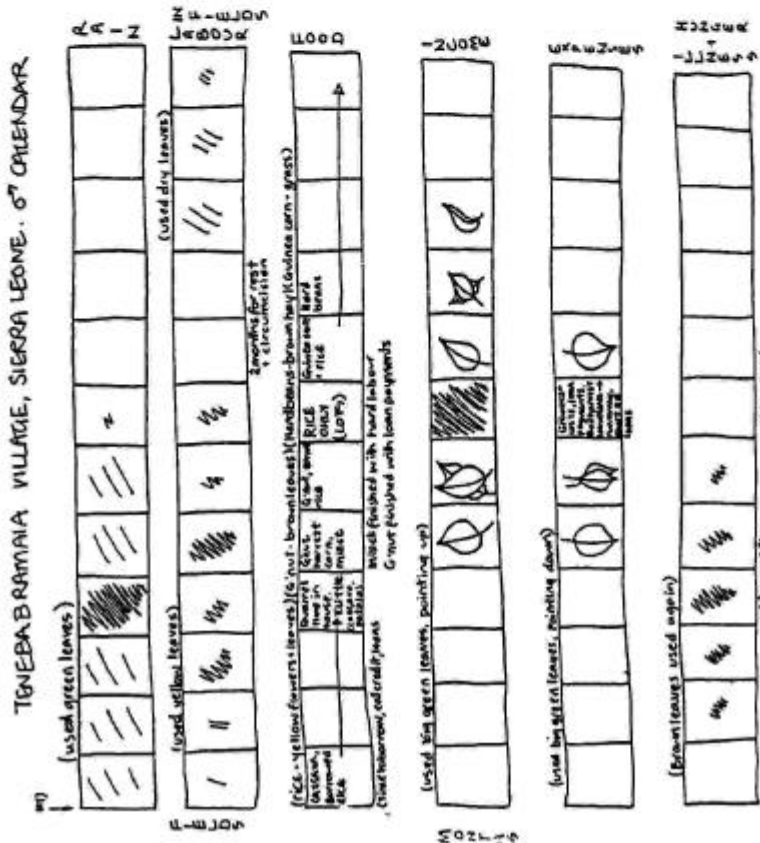
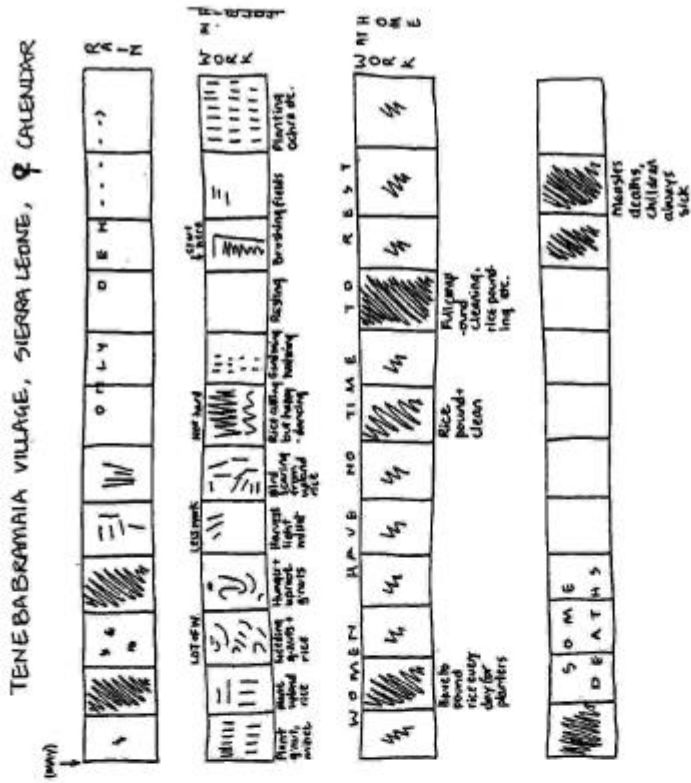
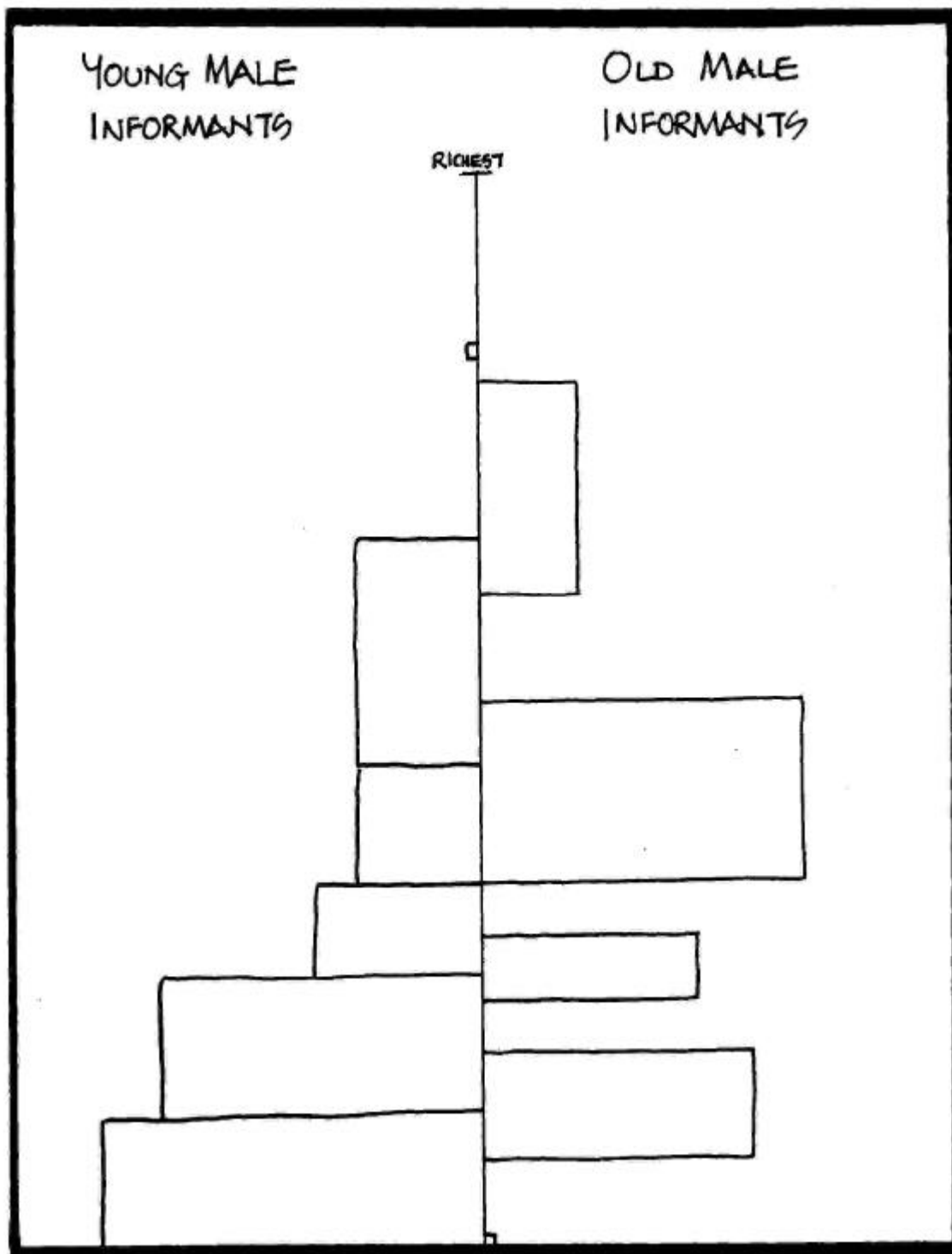


Figure 4 Socio-economic dimension ranking, ActionAid, Ghana, Banku. December 1990



This example explains all too well the necessity of understanding everyone's perspectives on an issue in order to determine how best to tackle it. It also shows how important is the inter-disciplinary approach, which RRA offers us, to designing an effective solution. Provision of family planning services alone is not the answer.

### The relevance of ethnic background

In some communities, perspective can be greatly influenced by ethnic background. A common difference of opinion in Africa is between pastoralists and agriculturalists: pastoralists look down on agriculturalists, who in turn value their sedentary lifestyle. Their attitudes to many things are governed by their ethnic background.

An interesting example of different perspectives was seen during an RRA exercise in Ghana, where socio-economic dimension (SED) ranking exercises were performed with old men, young men and women respectively. These ranking exercises are basically wealth ranking, a la Grandin, with a different name. The term 'wealth ranking' can suggest that it is only wealth that can bring status, so we chose to adopt the more cumbersome, but more accurate term (SED ranking, for short) instead.

In the village where the ranking exercise was conducted, there live five different ethnic groups. Preliminary comparison of the old male informants' rankings with those of the young men produced some interesting results. Whilst the young male informants' views of their community produced a reasonably standard Lorentz<sup>5</sup> curve shape (see Figure 4) the old men's views produced an apparently nonsensical shape (unfortunately the women's ranking is yet to be completed). The fieldworkers' conclusions from this comparison were that each old man interviewed had his own ideas about status and well-being based on his own ethnically based perceptions of what constitutes this (e.g. a large herd compared with a lot of land). By contrast, the young men produced much more

uniform results. This was thought to reflect the extent to which modern economic interests of all the young men, regardless of ethnic background, are far more geared towards dry season river bank vegetable production and no longer towards the diverse economic practices of their elders. This was merely a hypothesis of the fieldworkers: but it makes sense. Values are changing and once again, fieldworkers need to be aware of that. The unusual profile created by the old men's ranking highlighted the important differences in their value systems<sup>6</sup>.

### The relevance of poverty

The fourth axis of difference discussed here is poverty. Socio-economic dimension ranking is a powerful tool for the analysis of poverty: of who the poor are, of how their needs differ from those of others, and thirdly of their hidden nature. In Malawi, for instance, fieldworkers demonstrated to themselves:

- that whilst old men ranked female-headed households as the poorest, women and young men ranked the old, handicapped and childless as the poorest (Table 1);
- that the problems and priorities identified by village members were in some cases totally irrelevant to the needs of the poorest members of the community: for instance provision of school building roofs and teachers' housing, whilst a widely expressed need by old men, young men and women alike, would have no impact whatever on the needs of the poorest, who have no resources to send their children to school anyway, or who in many cases are the old and handicapped; and,

---

<sup>6</sup> I am not trying to say that ranking does not work: it does: we just need to be aware of what it may be telling us. See Alsop 1989, RRA Notes 4, for an example of the successful informant-based ranking of a village dominated by the caste system. As she suggested, in cases where cultural or caste-based differences are likely to influence results: "If a cautionary note is to be sounded it is not to use those household attributes identified by informants, in their definitions of wealth, as discrete indicators of wealth. In this instance perceptions of wealth took in to account variables other than those discussed by informants in their definition of wealth" (1989, p12).

---

<sup>5</sup> See Hope, Timmel and Hodzi 1984: Training for Transformation Mambo Press, Harare, p.9.37.

- that the highest sections of the community are more known to other villagers than are the poorest. There was much more common agreement on who the most important people of the village were than there was on the poorest.

attending also to the needs of the poorest, could make an agency inadvertently responsible for making the poorest even poorer and more hidden. As those better off have their needs attended to, they would be even less likely to voice the needs of the poorest.

It became clear to the fieldworkers from these observations that providing assistance without

**Table 1. Pemba village rankings, Malawi - March 1991**

Young men's groupings	Women's groupings	Old men's groupings
<p>1. Grow burly have money in the bank, food available throughout the year, offer ganyu to others for money, clothes and food; have reasonable cattle, goats, poultry and more children.</p> <p>2. Grow NDDF tobacco plus illegal burley tobacco, get more money in May than only maize grower, maize is fertilized, hence enough to eat. They are club members, but do not profit from the credit they receive.</p> <p>3. Mostly very old people supported by children for clothes, food and money, keep poultry produce little food, club members but do not receive profit from the credit they receive.</p> <p>4. Mostly very old people who don't have children to support them, they are not club members and do not use fertilizer, have no food throughout the year, have no source of income, have very poor houses, they don't have any chickens and some are disabled.</p>	<p>1. They grow burley tobacco. Have farm carts.  Have cattle. Houses have corrugated iron sheets. Enough maize for the whole year.  People do ganyu labour in their fields.</p> <p>2. Some grow burley tobacco. Food not a problem.</p> <p>3. Mostly middle aged. Enough land but gardens are eroded so they don't harvest enough to eat for the whole year.</p> <p>4. Those who are middle aged are just lazy. They fail to work to help their families. They do ganyu most times.</p> <p>5. They are old. No clothes. Female headed with children and divorced. Do not have enough food for themselves and their families. Don't have fertilizer to put in their gardens.</p> <p>6. Very old and handicapped. No food, no clothes and unable to do any work.</p>	<p>1. They have tobacco, big gardens. They grow burley tobacco. They employ some people to work in their gardens. They have cattle.</p> <p>2. They have big gardens. They grow NDDF tobacco. Most of them employ people to work on gardens.</p> <p>3. They don't employ people but work on gardens themselves. Most of them have enough food for the whole year.</p> <p>4. Most of them have enough food for the whole year. They do ganyu on rich the people's gardens. They make use of their small resources (land) which they have.</p> <p>5. Most of them are single but with children. They rely on ganyu for most of their food.</p>

Those attending

Group meeting: 2 3 4

Those who spoke: 2 3

2 3 4 5

2 3 4

1 2 3 4 5

2



## • Making choices and changing attitudes

The above case-study material has highlighted a number of examples of the use of RRA to explore, identify and analyse intra-communal difference. However, some may feel that there would appear to be so much difference within a community that the task of unravelling it becomes an end in itself. In the Ghanaian community, for instance, there are 5 different ethnic groups, 2 sexes, old and young, rich, average and poor (at least)... these differences already produce at least 60 different sub-groups within this community. It would clearly be nonsensical to try to delineate the different interests of so many sub-groups.

Instead the important thing is to recognise that different interests exist and, by using RRA techniques, we can quickly identify which axes are of more relevance to issues concerning community development in which communities. In Sierra Leone and Ghana, for instance, gender and age differences seemed to generate quite a lot of tension in the communities; in Malawi, and Bangladesh these differences appeared to generate less tension compared to the commonly felt urgency of food security and landlessness. All communities possess dimensions of difference based on age, gender and poverty. But it is important for us as development workers to understand how these matters affect community cohesion - and their ability to help themselves - if we want to develop sustainable projects.

The recognition of such intra-communal differences as those discussed here has important implications for effective programme development. Some may consider that it is beyond their capacity to work with the most vulnerable, since they are often more in need of welfare than able to work together with agencies to improve their lives. This paper is not trying to suggest that the most vulnerable have to be worked with: that is for each agency to decide. But it is important for agencies to be aware of the choices which they are making by default, through not taking intra-communal difference into account. Agencies should at least be aware of whether

projects are in fact increasing the gap between the poor and the better-off.

Finally, I consider this use of RRA to explore and analyse intra-communal difference as a powerful training tool for fieldworkers. At the start of a new training course, fieldworkers often say 'everybody in this area is poor'; or 'women in this country can say whatever they want to and are not oppressed'; or 'the old men don't really know anything round here: the ones with the good ideas are the young men.' By the end of the training courses, having worked separately with young men, with women and with old men, the fieldworkers have come themselves to realise that:

- each individual group has its own story to recount;
- often these stories are partly conflicting; and,
- each is of equal importance in helping us to fill in the jigsaw of our understanding.

If we are to take community participation seriously the study of intra-communal difference should be a central part of our investigations. In real life, the sum of the parts is always greater than the whole.

- |   |
|---|
| <ul style="list-style-type: none"> <li>• <b>Alice Welbourn</b>, Social Development Consultant, Contact: via IIED, 3 Endsleigh Street, London WC1H ODD, UK.</li> </ul> |
|---|

### 3

## **Participatory modelling in North Omo, Ethiopia: Investigating the perceptions of different groups through models**

**Ejigu Jonfa, Haile Mariam Tebeje, Tadesse Dessalegn, Hailu Halala and Andrea Cornwall**

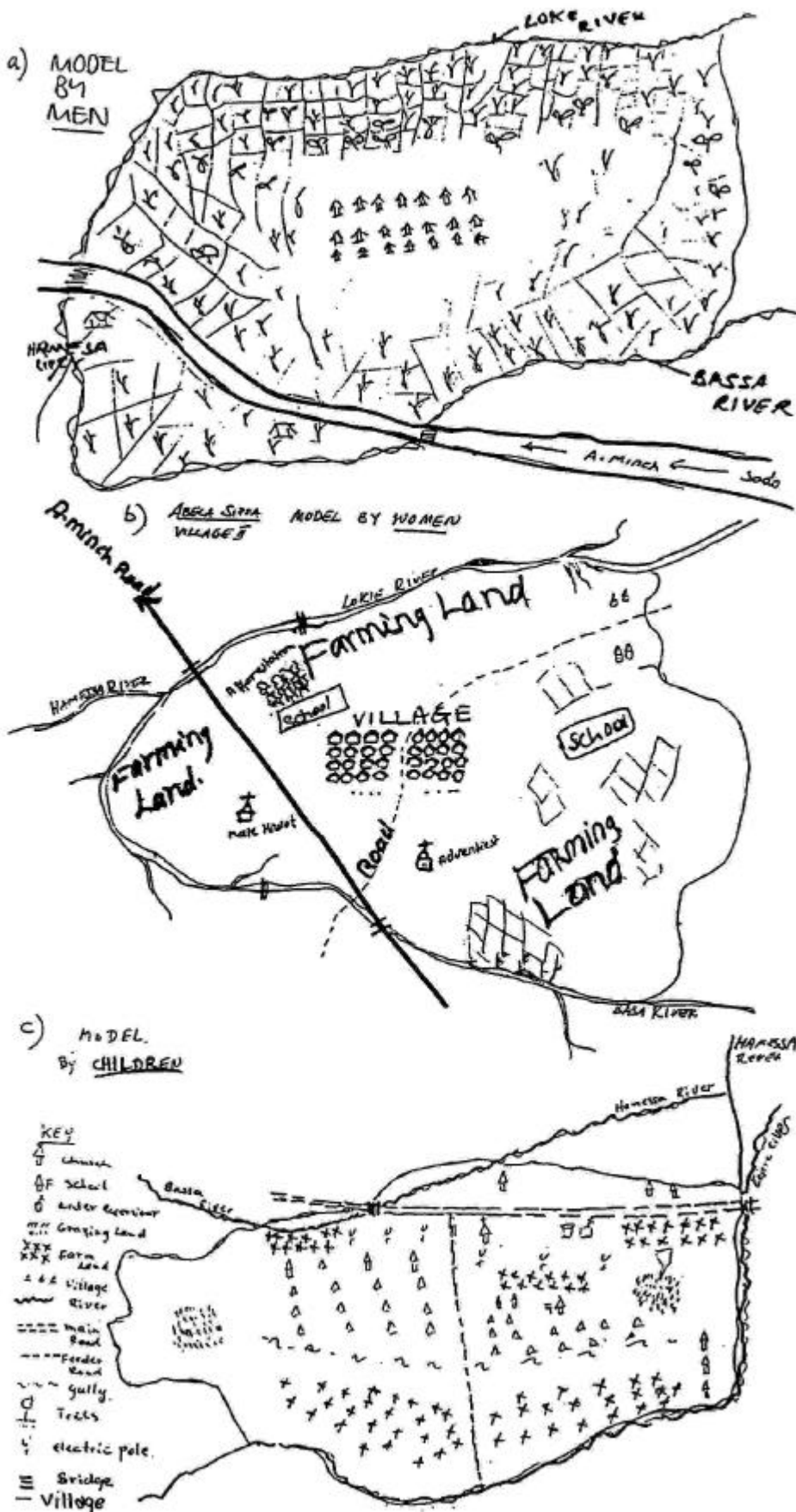
Participatory modelling in RRA is based on the idea that when a group come together to create a model of their area, the representation that emerges can serve as an indication of the aspects of the area which are of importance to the people who live there. Yet 'participation' often means, in practice, that the finished product tends to reflect the picture that the dominant group wish to portray. A 'group of villagers' may include old and young, men, women and children, but how successfully can the creation of one model convey the concerns of these different groups? This question was asked by a PRA team in North Omo on a training course in August 1991.

When the team gathered together villagers to make a model of the area, they found that although about thirty people clustered round in interest, only a handful of those present were participating in defining the features to be represented. This handful were all adult and male. Women silently looked on, children were shooed away if they got too near or tried to join in. The model reflected the perceptions of a particular group as to what they defined as the appropriate features and issues to show the PRA team. This did not seem adequate to understand the problems people faced in this area. The 'people' were also female and non-adult and their respective interests and concerns were not being given a voice.

The team asked the women and children to make their own models on spaces of ground adjacent to the area used by the men. The children quickly gathered sticks, leaves and stones and, under the direction of a ten year old boy, built an extensive model, which included features which the men had left out and, more relevantly, had excluded from their model. For example, the men's model showed the whole area as a patchwork of farm lands and discussions centred on the lack of grazing land. The children drew in grazing areas, unaware of the agendas of their elders. The group later found that every farmer allocates part of his land to grazing and makes use of communal grazing areas.

The women gathered many branches and twigs in order to create a detailed model of the rivers, their tributaries, crossing points and ponds which were made by the rivers. The issue of water availability, which the men had not brought up, became an apparent concern. The women also detailed the village and marked out the exact number of houses, discussing the number of inhabitants and the spaces between the houses, which led onto discussions about social issues. Both the women and children showed forested areas and an afforestation scheme, while the men had given over the whole model to marking out farmland and complained of a lack of afforestation.

Figure 1. Participatory modelling by gender and age, North Omo, Ethiopia



Modelling does not merely reveal people's perceptions, it also provides an opportunity of people to show a group of outsiders a version of their area which begs certain emphases and areas for intervention. When a group of researchers arrives in a village, whether on foot or in a land cruiser, villagers expect them to be capable of offering assistance of some form no matter how the exercise is introduced. In this situation, the men, in particular, wished to prompt certain conclusions and make certain points. Children, on the other hand, had none of the expectations or political insight of their elders and wished just to show an accurate version of their area. If significantly different versions emerge the team would be better placed to reflect on the implications of the motivated representations which are being offered. Through this a greater awareness of the politics of the encounter could be developed, as well as an understanding of what is tacitly expected of the team in terms of assistance.

The PRA team learnt from this how useful it was to do the modelling exercise with different groups. As men often dominate group proceedings and present their versions as authoritative, dividing a modelling group by age and gender is an effective way to gain an insight into the perceptions and pressing concerns of focus groups. It was also important that the PRA team, which (apart from the trainer) was composed exclusively of men, were guided towards considering the viewpoints of women and children; who are too often disregarded as informants. The issues brought up by women and children would have been submerged if only one model had been created. By letting them build their own models a wealth of interesting information could be gained, both through the exercise itself and through the contrasts between the models.

## NOTE

The report of the training workshop held in North Omo in August, 1991, entitled "Farmer Participatory Research in North Omo, Ethiopia: Report of a Training Course in Rapid Rural Appraisal", is available from IIED, London, free of charge to individuals and institutions in the south. The cost is £5 to those in the north.

- **Ejigu Jonfa**, FARM Africa, PO Box 5746, Addis Ababa, Ethiopia; **Haile Mariam Tebeje**, WVE, PO Box 174, Wolayta, Soddo, Ethiopia; **Tadesse Dessalegn**, I.A.R., PO Box 6 Awassa, Ethiopia; **Hailu Halala**, MoA, PO Box 166, Wolayta, Soddo, Ethiopia; and **Andrea Cornwall**, School of Oriental and African Studies, Malet Street, London WC1 and IIED, London, UK.

## 4

# Shoulder tapping: a technique of training in Participatory Rural Appraisal

Anil C Shah

A group of District officers were taken on a transect to see the problems of soil erosion and the scope for watershed development. I told them in advance that a transect in PRA is for observation and to understand the knowledge and perception of the farmers. We do not advise, we ask - but ask open questions without implied advice. I told them that this was very difficult for educated persons, more so for those in authority. Therefore, when I found anyone giving advice or asking a question with implicit advice, I would tap his shoulder and if necessary offer my services for rendering the advice-query into an open ended question.

Six of us then set out in the mid March 1991 afternoon of not-so-hot weather to visit farm lands of a village in a drought prone Block. We were led by Dudhabhai, extension volunteer trained by Aga Khan Rural Support Programme (AKRSP) in watershed techniques, and five other villagers. In the midst of a treated watershed, a visiting officer started, "This is a wrong place for a spillway in the earthen bund. It should ..."

I tapped his shoulder and asked Dudhabhai on behalf of the knowledgeable officer, "Why have you placed the spillway at this point?"

He replied, "Water collects here from two sides of the bund, and the spillway carries it further down without damaging the earthen bund." I continued on behalf of the visitor. "But suppose you had put it at some other place, say here?"

"It would be costlier", Dudhabhai answered.

The visiting officer, who wanted to advise was satisfied. But another jumped in, "You should not collect earth...."

"Sir, you are advising, what do you want to say?" I intervened in English.

"Earth should be collected from the upward slope of a bund so that levelling process is speeded up", he explained. I asked on his behalf. "Why do you collect earth from both sides for constructing a bund?"

Dudhabhai was ready with explanation, "Bunding work should result in minimum loss of cultivated land. Taking earth from both sides, the depression formed is shallow. We are able to raise a crop very close to the bund"

This whetted the officer's curiosity. "Did you in fact?" I did not intervene.

"Yes sir, but it failed - no rains"

We moved on. Another officer felt irresistible need to advise, "You should put grass...." I tapped his shoulder, "This is advice. May I ask on your behalf?" He nodded, a little amused.

"How do you ensure protection of earthen bund from rainwater?" The village group mentioned that they tried two varieties of grasses to strengthen the bund but the seeds did not sprout on account of failure of rains. They also mentioned strengthening of bunds through raising of other shallow root crops like 'math'.

Moving on, the group stopped at a surface well that was obviously abandoned halfway. The soil conservation officer, noticing that the well was in a corner of a field at the end of a

“Yes”.

I changed the advice into a PRA mode, “Is there any use of this half done well?”

Ukabhai, a leading member of Gram Vikas Mandal, promoted by AKRSP, replied thoughtfully, “If a channel is made to bring water off that slope”, he pointed out his finger in a direction and continued, “the well will get filled up, like a pond. Its water could be used to save a withering crop”. I turned to the expert who was largely satisfied.

Discussion on digging out a large pond to store run-off was conducted by the Director of District Rural Development Agency, and I found that there was hardly any need to intervene. The discussion was on the advantages and disadvantages of a shallow pond covering a larger area versus a small but deep pond. The villagers simply said, “We will deepen the pond till we strike rock, then cover more ground”. The disadvantage of evaporation losses in a shallow spread out pond was never mentioned by the villagers, but the Director resisted the temptation of teaching. My presence perhaps reminded him that in a PRA transect you should not teach, only learn. And he did learn about an unexpected disadvantage of an unguarded deep pond - animals might fall in it! As we proceeded my intervention was somewhat reduced and the visitors learned more about falling water level in irrigation wells, suitability of different fruit trees in their village, and more.

Quite an achievement in half a day. But to make the achievement last, it has to become assimilated in a person’s way of thinking and communicating. As Robert Chambers would say: basic reversals are needed - from the overbearing authority, advising and ordering, to a curiosity to learn, and to a respect for those who are apparently ordinary. Is it possible to foster such attitudinal change only in PRA without developing an overall

democratic approach genuinely to know an other person’s point of view, not only with villagers, but also with staff, friends and maybe with members of one’s own family? Can one ask open ended questions without an open mind? However, even if it starts mechanically and artificially, PRA exercises can contribute to opening of minds, more so if someone is around to tap the shoulder when investigators start to advise when they should be listening and learning.

<ul style="list-style-type: none"><li>• <b>Anil C Shah</b>, Aga Khan Rural Support Programme, Choice Premises, Swastik Cross Roads, Navrangpura, Ahmedabad 380 009, India.</li></ul>
--

## 5

## 'Pass on the pen' approach: identifying the poorest of the poor families

K Chandramouli

### • Introduction

In some of the villages in Anantapur District, India, conducting grama sabhas (credit camps) for identifying the poorest of the poor families for credit assistance under the Integrated Rural Development Programme (IRDP) has remained a difficult task for the following reasons:

- Strong village factions cause the rural people to identify themselves with one group or another;
- Rural people tend to vie with one another to get selected for the assistance, ultimately resulting in pandemonium and cancellation of credit camp;
- Neglect of the poorest of the poor, who are seen as hopeless cases, and selection going in favour of slightly better-off families;
- Non-officials who are present influence the opinions of the officials making the selection;
- Bankers' tend to select better-off families hoping that their recoveries would be better with such families than from the loans and given to the poorest of the poor; and,
- Corrupt practices among banks and government officers.

To overcome such problems and to select the poorest of the poor families, while gaining participation of everybody present to the satisfaction of them all, and to leave no room for non-officials, bankers and government officials to manipulate the process, the

following 'PRA-LEARN' technique has been adopted, which has given impressive results<sup>1</sup>.

### • Background

Obuladevaracheruvu, a village in erstwhile Kadiri (west) block is a major panchayat and now a mandal headquarters. It has four hamlets with a population of 4,622.

During a household survey, the majority of the households in Obuladevaracheruvu, who are well aware of what IRDP means, declared that they are all below poverty line and their annual income is less than Rs.4800/-. Even the best of the efforts made by the Mandal Development Officer, who is a senior block development officer, and village development officers during the household survey could not give a true picture of the economic conditions of each family.

Verification of revenue records showed the officers that they owned lands which categorize them as either small farmers or marginal farmers, which is, of course, true. But among the small and marginal farmers, who is the poorest and who really is in the income bracket of Rs.4800/- and below was only the problem as during the household survey officials could assess their income based on the type of income yielding assets they possessed and agriculture income as declared by them.

---

<sup>1</sup> PRA is Participatory Rural Appraisal; LEARN is Anantapur style PRA, in which L stands for Listen carefully to village community, E for encourage them to speak, A for ask questions, R for review and N for note down plan purposes.

That gave the list of families to the 'Type-C' proforma, as the target group, from which the beneficiaries could be selected for 1991-92 IRDP assistance. And that was a long list of 241 families. The task was to select only 31 families out of the above. What was worst was, other slightly better off families also were present at the time of credit camp asking why their names were not entered in the 'Type-C'. They are also very poor as the extent of land possessed by them cannot be taken as a norm for deciding the family income because the income from agriculture is very meagre because of the prevailing drought conditions. That was the condition in which the credit camp was to be held. Anticipating trouble, the banker and the Mandal Development Officer informed in the Joint Mandal Level Bankers Committee Meeting held at Kadiri on 25.6.91 that it will be impossible to conduct the credit camp at O.D. Cheruvu and they wanted the village to be deleted, when pursued further, they have agreed to go with it, but insisted that the Project Director shall be present for the exercise.

#### • **Motivation**

Considering all the above, and drawing all the confidence from our 'PRA-LEARN' experience, which we had applied in 16 watersheds under the District Rural Development Agency (DRDA), we decided to conduct our first credit camp on 10th July 1991.

#### • **The scene**

On 10th July, as we entered the village we found about 450 people waiting in front of the gram panchayat office, newly constructed, but not occupied. We decided to go out into the nearby fields where there were 4 huge tamarind trees and requested the people to gather under them.

The 'Pass on the Pen' technique was then explained to all present. The exercise went as follows.

#### • **The technique**

In the rural areas, the pen is regarded as a powerful instrument and the rural people

identify it with 'Saraswathi', the goddess of learning and truth. The people assembled were told that to whomever's hand the pen is given, he shall speak only truth because he holds the pen, the most revered object.

Then the group was asked first to identify one among themselves who according to them is the poorest, living in an economically very bad condition and, for sure, no one else present, other than him, is as poor. The group unanimously selected one person who according to them was the poorest. 'The Pen' was handed over to him and he was requested to come out of the group stand and face the group and tell everything about him. He said he had 3 daughters and 2 sons, he had no landed property, no house, lives in a small thatched hut raised under a tree. He, his wife and two older daughters work as agricultural labourers. But since casual labour is required only for 60 or 70 days in a year, they have to depend upon somebody's kindness for the rest of the year. One daughter works as a servant maid in a vysya family which runs a provision shop in the same village. The family eats only once a day most of the days in a year and twice on festival days and during the agricultural season when 4 of them earn wages. The man said he is planning to fix up his 11 year old son, eldest of two, as a cattle grazer. In closing, he stated that if any IRDP assistance was given he would set up a petty provision shop in Obuladevaracheruvu.

After he completed, the group was asked whether whatever he said was true. All in one voice said 'true' and the group was again asked whether he can be selected for IRDP assistance for 1991-92. Again, all in one voice said, 'yes'. The selected person was requested to identify another person from among the group, who is as poor as him or slightly better but definitely the poorest among the rest of the people assembled and to hand over 'the pen' to him.

After about a minute of searching looks, he had handed over the pen to another person, a muslim. The second person came up, turned to face the group and holding 'the pen' with both hands, started narrating his economic condition to the group. He said that his family is 8 strong with his old parents, 3 daughters and 1 son. 2 daughters are engaged in beedi



making, the son goes to school, his wife sells vegetables from a basket, which she carries on her head to 6 neighbouring villages, covering one or two villages in one day. He sells groundnut, castor and gingelly oils in 10 litres tins, which he carries on his head to the surrounding villages. He has no land, lives in a small hut and presently borrows Rs.1000/- from a local money lender (to be returned in 90 days, and at the time of return has to pay Rs.1200/- back, as revealed by him when asked separately). If some assistance was given to him he said he would further his business by purchasing a quantity of oil from Kadiri, and with all additional income he would educate his son.

The group was asked whether there is anybody who can differ on anyone of the things he said. There was silence. The question was asked the other way round, whether all that he said was correct. Everybody present said 'yes'. When asked whether we could select him, everybody said 'yes'. He was selected and the application was prepared.

And the exercise went on, 'the pen' passing on from one man to the other and the required 31 people were selected.

What we found really interesting is that many villagers, other than those selected, came up and said that they are happy that in the selection of each IDRPs recipient, each person had a say. And some of the selected came on to the place where we sat and turning to the others said that they are indebted for the kind gesture of all others assembled in permitting the poorest of the poor to get the benefit. But for their co-operation and generous kindness, they would not have got the assistance, as usual.

Thus, the technique not only helped us in going through the exercise to our utmost satisfaction, it allowed the real poorest of the poor to be identified and kept all the non-official elements from interfering (though they were present in the credit camp). Just as important, the exercise which brought together members of two rival groups, encouraged people to thank each other, talk to each other and smile at each other, at least for that one day.

The happiest among all the officers present was the Mandal Development Officer, as the exercise had gone on smoothly and to the satisfaction of the 5 villages, including 4 hamlets. The unhappy, as it appeared to me, were, firstly, six police constables who were posted there to take care of the law and order situation who had no work to do, and secondly, the Branch Manager of Sree Anatha Gramena Bank, O.D.Chervu, who had no land-based schemes in the whole of 31 selected, as most of them tended to be sheep, bullock carts and small businesses.

I must also say, on the other hand, that the Branch Manager and his field officer were happy that a task they thought would be impossible was made possible with 'just a pen'!

- **K Chandramouli**, Project Director, District Rural Development Agency, Anantapur, Andhra Pradesh 515 001, India.

### Post script

K Chandramouli subsequently writes on the 29th October "I received your letter on 14 October along with RRA Notes. I and my staff are inspired... and we have already replicated the model in five other problem villages where because of factions we were not able to push the concept of rural development in its true spirits earlier".

## 6

## The use of the school essay as an RRA technique: a case study from Bong County, Liberia

Jennifer A Sutton and Blair D Orr

### • Introduction

Researchers collect sociological data for rural development projects throughout the world, sometimes with inefficient or imprecise methods. Questionnaires and interviews are routinely used to ask people directly what they think and know about the conditions and events that affect them. Yet the results derived from these methods may be biased. Many have recognised the difficulties of information gathering (Olawoye, 1985; Opio-Odongo, 1985; Phillips, 1973; Gilmour, 1988; Chambers, 1980). Opio-Odongo is concerned with the “relationship between overt behaviour and questionnaires” and the “delicate nature of the interactions between sociologists as scientists and their fellow human beings as the objects of investigation”. Phillips discusses the bias due to modelling effects. He states, “Modelling can occur when the investigator consciously or unconsciously projects his own views (attitudes, opinions, or whatever) on those whom he studies”. However, he goes on to say that you cannot avoid biased data, for even “most studies of bias are themselves subject to possible biasing influences”. Another prevalent form of bias, strategic bias (Harris et al, 1989), occurs when a respondent believes he or she has something to gain from the interviewer or an agency associated with the interviewer. Bias can influence responses, leaving the researcher with the need to determine the validity of the collected data. We attempted to eliminate some of these biases by using the school essay method.

### • The school essay method

Students are asked to write a brief essay on an assigned topic pertinent to development within their communities. They are given several days to think about the topic and discuss it with family and friends. The students are aware that the essay will be graded on clarity, neatness, punctuation, and grammar, and not on content. We applied this technique in Bong County, Liberia by sponsoring an essay contest for the eighth grade students of six local schools. Our selected topic was ‘What I Like and Dislike about Using a Latrine’.

The essay method is useful in that it reduces, if not eliminates, the role of the researcher as interviewer and so avoids the many biases of the interview technique. It gives the responsibility of the interviewer-interviewee relationship to the people being studied, but does not tell them that they have this relationship with one another. The student becomes the interviewer when he or she discusses the potential contents of the essay with family and friends. This relationship between interviewer and interviewee is more familiar and therefore less restrained, reducing not only the possibility of acquiescence and a response set (Opio-Odongo, 1985), but also the biases of the guided interview by an unfamiliar investigator. The interviewer-interviewee bias is further reduced because neither the students nor the people to whom they speak about the essays realize that they are the interviewers and interviewees, respectively. Further, the modelling is within the same culture and even the same social group (Phillips, 1973). The essay method is more effective than the open-ended interviews in the qualitative style studied by Bliss (1989)

because it is open-ended without a chance for discussion between the researcher and the respondents (both the interviewers and the interviewees), which reduces the possibility that the researcher might have some influence in what the respondents say. To some extent, the problem of reaching the illiterate people of the community is reduced. Although it is the literate students writing the essay, the researcher receives not only their responses, but also those of the illiterate people with whom the students have spoken.

Another important factor is that there is not just one interviewer, but many. This allows for different approaches to the topic and reduces the risk of the responses being slanted in any one direction as could otherwise be the case. In our study, we used 90 interviewers (i.e. students) in order to reach as many interviewees as possible. Through the large number of students involved, we were able to receive input from a significant portion of society. We selected six schools, three public and three private, to obtain a cross-section of the population in the area, and followed these 3 rules.

First, before beginning the contest, we consulted with the local educational authorities to secure their approval. To ensure that the contest had validity for the participants and kept them working within a familiar system, we used the name of the authority as the sponsor of the contest.

Second, we assigned the topic to the students several days before they wrote the essays. This permitted them to talk with each other and with their families about the possible responses.

Third, we provided clear instructions. We required that the essays be written in the classrooms to prevent anyone from bringing in

work that was not his or her own. The essays were one to two pages in length and were graded on the students' use of English grammar, neatness, and clarity of writing. It was made clear that content was not an issue to be considered when the essays were graded. This step was taken to encourage students to write honestly and without concern as to whether their answers would please the grader. This reduced the chance that strategic bias would have a noticeable effect on the answers. Instead of being rewarded for 'correct' answers, the students won the contest because they had the best English skills.

One month after initiating the contest we collected the essays, graded them and awarded prizes. The reward consisted not only of recognition for academic achievement, but also of cash prizes to be used for school tuition. The cash prizes were intended to increase voluntary participation in the contest. For other development projects, particularly those which are just being initiated, the prizes and essay contest can generate positive attention and goodwill.

#### **• Contents of the essays**

We received ninety essays from the six schools. In total, the essays contained 535 separate likes and dislikes. The responses were varied and so, for analytical purposes, we grouped the responses into five broad categories: structural, cultural, health, economic, and environmental reasons. The number of responses are shown in Table 1, grouped by school and response category. Structural reasons deal with the construction and physical maintenance of the latrine. Cultural reasons are those which relate to values of the community. Health, economic, and environmental categories are self-explanatory.

**Table 1. Responses to school essay contest by category and school**

Reason	School						Total
	Massaq uoi	Bakalu	St. Mark's	Phebe	St. Martin's	Gibson	
<b>Cultural</b>	23	3	3	29	8	12	78
<b>Health</b>	45	16	37	40	11	15	164
<b>Environmental</b>	63	3	4	107	5	24	206
<b>Economic</b>	1	0	0	15	7	0	23
<b>Structural</b>	6	4	2	37	12	3	64
<b>Total</b>	138	26	46	228	43	54	535

Before writing their essays students have had the opportunity to interact with each other and other members of their community. While we received many essays from each school, it is better to analyse the group of essays from each school as one single composite essay which is the synthesis of the community conversations which preceded the writing. The situations or feelings described in the responses must be shared by many people.

The most obvious feeling was that the majority of the people did not like latrines. Understandably, they especially disliked dirty latrines. Some students were aware of the health dangers of a dirty latrine saying, "it gives you many kinds of disease", "you might get other persons disease", and more specifically, "[Flies] sit on our faeces then again sit on our food and this most of the time leads to running stomach". Other students just knew that they did not like the waste to be on the floor, walls or seat. One student wrote, "If my restroom is very dirty I will not allow any one to enter it, because if the person go there he will always like to talk about you bad".

There were other reasons why they disliked latrines. Structurally, the latrine could be unsafe for children. As one student puts it, "Children often fall in the hole". Others wrote, "it last too long" and "it keeps bad odour around when full". Some students were concerned about privacy, saying, "some.....does not have door at all". In these examples the essay method has discovered problems that can be solved technically. Better planning can go into building the latrines so that they do not have holes large enough for a

child to fall into them, they can be better designed so that they last longer and can be moved when the hole is full and the hole can be more securely sealed after it is full to prevent the bad smell from escaping. A door is a simple addition, though it is a question of maintenance as to whether or not the door will remain attached.

Another observation made by the students was that they did not like a latrine to be located near a well. They know that "It is also not good to build a latrine near a well because when you do so, then the well will absorb the water from the latrine which create germs in to your drinking water that may affect you and your family with a great deal of diseases". Again, this identified problem can be avoided by good planning.

We also learned that some of the reasons why the people do not like latrines are false. Therefore, some of their dislikes can be overcome with some basic education on the facts about latrines. One such false belief is that the bad odour of the latrine can give you sickness. One student writes, "people will also get germs from the air and get some sicknesses". Another writes, "I don't like to use latrine because the vibration of an air from the hole is very contagious". The fear that the air of the latrine can make a person sick was an unexpected response. Other responses were just as surprising.

Understandably, the reasons with cultural influence were the most unpredictable and unexpected. A latrine is appreciated by some people because "it contributes to the

my visitors to carry my good name and also my parents who always like to visit me". Fortunately, the culture-based reasons tend to be more positive than negative and can, therefore, be considered guidelines for continuing the development project.

However, problems represented by the negative responses need to be solved before the program can be successful. For example, some of the students listed fear of physical harm by man or animal as reasons why they disliked the latrines. Many mentioned the danger of visiting the latrine at night. One student explains his fear saying, "you will be afraid to come outside to use the latrine at night because some time you will be attacked by some hard men and that is one of the main thing that I don't like about latrine". The student refers to 'hard men', actually heart men, hired assassins who are most dangerous to the healthy young boys of a village or town. The fear of heart men is as legitimate as that of snake bite, though not as frequent, and must be dealt with according to local custom combined with common sense.

These types of cultural 'dislikes' can cause the greatest problems for rural development projects. They are usually less physically obvious and require the most sensitivity in project implementation. The problems may not be part of an interview with set questions if the interview designer is from outside the culture. Even in an open-ended interview people could be more reluctant to discuss their cultural likes and dislikes if they know it is being recorded for outside observation. The essay method may uncover otherwise hidden cultural reasons for project success or failure.

In addition to the primary advantages discussed above, the method is as Chambers (1980) would phrase it, 'quick and clean'. Our study required less than one month and the only cost incurred was the small expenditure for prize money. Further, the method can generate positive publicity for the sponsoring ministry, agency, or development project. Finally, the method is versatile enough to be

used during most stages of a development project.

However, the essay contest should not be extended beyond its capabilities. It is unlikely to yield useful quantitative data. The method gathers a list of reasons, but rarely will it be able to explore any of the reasons in depth. It may be best to use the method in conjunction with other survey techniques. Reasons cited in the essay can be a starting point for more participatory discussions, beginning with the more obvious reasons and working towards the less obvious.

## • Conclusions

Despite the limitations listed above, the essay method can be useful in discovering the reasons why people like or dislike a development project. The method's primary advantage is its ability to obscure the roles of interviewer and interviewee. This property makes the essay contest a useful tool for applied sociologists studying the cultural aspects of rural development.

- **Jennifer A Sutton**, Los Angeles County Office of Education, Los Angeles County Outdoor Science School, 23800 N. Angeles Forest Highway, Palmdale, CA 93550, USA; and **Blair D Orr**, Dept of Forestry and Geology, The University of the South, Sewanee, TN 37375, USA.

## REFERENCES

- Bliss, J. C. and A. J. Martin. 1989. Identifying NIPF management motivations with qualitative methods. *Forest Science*. 35(2), 601-622.
- Chambers, R. 1980. Shortcut Methods in Information Gathering for Rural Development Projects. Paper for World Bank Agricultural Sector Symposia. 7 January 1980. University of Sussex, Brighton, UK
- Gilmour, D. A. 1988. Not Seeing the Trees for the Forest: A Re-Appraisal of the Deforestation Crisis in the 2 Hill Districts of Nepal. *Mountain Research and Development*. 8(4), 343-350.
- Harris, C. C., B. L. Driver and W. J. McLaughlin. 1989. Improving the

Contingent Valuation Method: A Psychological Perspective. Journal of Environmental Economics and Management. 17, 213-229.

Olawoye, Janice E. 1985. Questions on Relevant Methods for Research in Third-World Countries. The Rural Sociologist. 5(4), 254-258.

Opiyo-Odongo, J. M. A. 1985. Research Strategies for Studying Rural Life in Africa. The Rural Sociologist. 5(4), 248-253.

Phillips, Derek. 1973. Abandoning Method: Sociological Studies in Methodology. Jossey-Bass Publishers, San Francisco.

## 7

## Methodological notes on exploring indigenous knowledge and management of crop health

James Fairhead

These notes highlight several misconceptions which limit researchers in their investigation of local knowledge of crop health.

### • Methodological precautions

Firstly, innovative researchers have sometimes presented farmers with photographs, specimens, or field examples of crop diseases and have asked them to identify, name and explain the incidence of them. Such a disease-centric approach wrongfully assumes that if farmers do not know about diseases then they do not account for them in their management of crop health. Farmers actually have many ways to assess and influence the health of a crop without explaining in terms of disease.

That the pathosystem is subsumed into a broader understanding of plant-water-soil relations means that for farmers non-disease related causes of ill-health are not distinct from disease related ones. Researchers can be misled if they only focus their enquiry on what they consider to be disease related phenomena. Non-disease related causes of ill health such as flooding or hail can inform and be integral to the ways farmers manage and understand of crop health.

Secondly, it is a mistake to focus only on agricultural phenomena to the exclusion of local medical knowledge. Notions of health, fertility and death are common to both people and plants, and peoples understanding of one is likely to be informed by the other. If it is not, this would in itself be significant. It is hard to tell whether farmers liken plant phenomena with other phenomena in the world around them, or consider the processes to be the same. Whatever the origin and

implications of the likeness will remain obscure to researchers who are unfamiliar with that other world which plant phenomena are like, or which they can be likened to. To avoid considering local explanations derived from agricultural discussion to be exclusively applicable to crops, it is therefore important to follow explanations through and ask if the idioms and causes can be applied to people, animals or anything else.

To this end, it may well be useful to carry out (or consult) a parallel study of the analytic principles in understanding personal health as this is likely to shed light onto health relations in the plant world. This does not necessarily mean visiting specialist local healers, because specialists usually deal with special occasions and often have their own 'technical' vocabulary which may differ from that applied to everyday occurrences. It is important to investigate the ways that non-specialists evaluate their own health on a day-to-day basis, and think about, diagnose and cure their own ailments.

Thirdly, researchers have been tempted to examine all local explanations of crop phenomena at face value, rather than consider different sorts of explanation to be associated with different socio-political or production contexts. In communities where farming is a sensitive social and economic issue (i.e. where farming, trading, storing, selling and consuming produce, creates social group identity, and differentiates between groups economically and conceptually) farmers can usually explain agricultural practice and phenomena in many ways. Explanations range from the polite and evasive explanatory shorthand idioms (e.g. 'there was too much rain', 'it was the will of god'), to idioms

signalling distrust (e.g. 'it was sorcery'), to ethnic norms ('this way is our way'), and to uncertain and exploratory hypothesis.

Perhaps the most difficult task for ethno-scientists is to distinguish between these different sorts of explanations with an eye for their socio-political context. It would be wrong to consider all explanations to be somehow logically connected, but recognising the discontinuities, and their importance requires astute observational and theoretical awareness. Similar difficulties in understanding discontinuities are faced by farmers who hear about God's monopoly on creation in Baptist fundamentalist church in the morning and in the evening hear about the creation of new crop varieties by IARCs on the radio.

Researchers most easily elicit and analyse shorthand and normative explanations which are straightforward to express, and relatively standard to a community, but which are more important in managing social relations than plant health ones. We can give the impression of talking shop without saying anything of importance. The less certain ideas which infuse farmers practices, especially their most novel practices, can easily escape the researcher's attention. More experimental, hypothetical, relatively unformulated, metaphorical, 'empirical' ideas are generally socially and intellectually harder to discuss. In many circumstances novelty and expressing individuality can be socially very problematic indeed. That these ideas are less coherent across the community, and that they are thus harder to analyse does not make them any less significant.

Different social strata may have different experiences and knowledge of farming. As a result, it can be the case that young and old men understand the origin of abundance differently; that men and women understand weed relations differently, and that those who cultivate for a wage on other people's land and those who cultivate for themselves on their own can understand fertility relations differently. Husbands who live in the same village all their lives have a different comparative experience to their wives who move to be with their husbands at marriage.

Those who have examined historical changes in local knowledge within the changing social, economic and political context of farming stress the need to examine agricultural expression within the local relations of production of knowledge; relations (& struggles) between these groups (Bebbington 1990; Fairhead 1990). This means that one cannot link knowledge to a place but to relationships between peoples.

### • Methodological hints

I consider these precautions as fundamental to any sort of methodology (in the narrow sense of 'data collection tool'). Formal methodologies and questionnaires are not appropriate to learning how farmers understand crop health. I would be wary even of rapid appraisal tools as the prerequisite is to have a good and enduring relationship with several farmers from whom one can learn in an iterative way. There are perhaps several ways, however, which can be used to speed up the iterative learning process.

Both Bentley in Honduras (1989) and myself in Zaire have found that farmers used notions of heat and cold, and burning, and cooling (freezing) to describe the diseased state of plants. Given this description is common, it is then important to explore the conditions which are seen to cause these and the causal linkages - this is where the local knowledge of health relations really lies. One can discuss each successive stage in the cultivation cycle, and see if there are practices which alter the incidence of these phenomena (easier said than done). This requires a very detailed knowledge of the subtle variables which farmers alter or account for at every stage of the cultivation cycle, and the rationale behind such manipulation. This requires great persistence by the observing researcher, and astute observation which takes nothing for granted (for problems of observation of micro-environments, see Chambers 1990).

The way I checked what I saw and heard, and deepened my analysis was to try out explanations derived from one informant, when in similar situations with others. Did it shock? (i.e. ideas conflict, or the original ideas was creative) or does it pass unnoticed as correct.



## • Variants not norms

The interesting aspects of the production system are the variations, and not the norms. Indeed we should avoid any notion of norm, and contrast the reasoning or practices of one informant with those of every other and not any 'norm'. By focusing on the subtle differences in the way tasks are done between times, people and places (e.g. which weeds are left where, which leaves are picked off the plant) it is possible to derive sources of farming flexibility. (Certain things one cannot talk about with farmers whilst observing, and one must rely on discussion alone e.g. what does one vary if one is late planting? or if there is a drought? or excess rain?). Such questions will be more effective if the sources of flexibility are already understood.

## • Choosing informants

Although certain people can have a local reputation for their farming skill, they are not necessarily the best informants. The success on which their reputation is built might reflect their reduced need to make less compromises than their skill per se. It is often wealthier farmers who have more land, who can hire labour, store seed etc. and who therefore have more ways to control the health of their crops who are considered 'good farmers'. It would be wrong to rely only on such informants. The ideas of others who struggle to meet more intractable problems to the best of their ability are as important to elucidate, if not more so.

These are only quickly jotted down ideas. They ought to complement both longer term research results (Trutmann et al, 1991) and the sorts of methodologies being developed under participatory rural appraisal.

- **James Fairhead**, Natural Resources Institute, Chatham Maritime, Chatham, Kent ME4 4TB, UK.

### REFERENCES

Bebbington, A.J. 1990. Indigenous agriculture in the central ecuadorian Andes. The cultural ecology and institutional conditions of its construction and its change. PhD thesis, Graduate School of Geography, Clark University,

Worcester, USA.

Bentley, J. 1989. What farmers don't know can't help them: the strengths and weaknesses of indigenous technical knowledge in Honduras. *Agriculture and Human Values*, Summer 1989, 25-30.

Chambers, R. 1990. *Micro-Environments Unobserved*. Gatekeeper Series No. 22, Sustainable Agriculture Programme. IIED, London.

Fairhead, J. R. 1990. *Fields of struggle: towards a social history of farming knowledge and practice in a Bwisha village, Kivu, Zaire*. PhD dissertation, School of Oriental and African Studies, University of London.

Trutmann, P., J. Voss & J. Fairhead, 1991. *Disease control in bean cultivation systems of the Great Lakes Region of Africa*. *Tropical Pest Management* (forthcoming).

## 8

## The Thippapur experience: a PRA diary

Somesh Kumar and A Santhi Kumari

### • Introduction

We report on a Participatory Rural Appraisal (PRA) conducted over two and a half days in the village of Thippapur, of Cherla Mandal in Khammam district of Andhra Pradesh State in India. It was selected because Thippapur is an entirely tribal village, virtually cut off from the rest of the world by being located in the interior of the forest. We wanted to see the applicability of PRA in an isolated tribal village for plan preparation for local development by the villagers. The present paper, however, touches some of our experiences with respect the methods used.

### • The village

Thippapur is a remote tribal inhabitation close to the Madhya Pradesh - Andhra Pradesh border, surrounded by forest on all sides. A country track connects the village to its mandal<sup>1</sup> headquarters. There is no public transport available whatsoever and the village is yet to be electrified. All the houses in the village are thatched and the only two pucca buildings are the G C C<sup>2</sup> Depot and the school.

### • The people

<sup>1</sup> An intermediary administrative unit between the village and district.

<sup>2</sup> Girizan Cooperative Corporation (Girijan = Giri: Hill, Jan = population). A Corporation meant to purchase all the forest produce collected by the tribes. This is to avoid middlemen exploiting the tribes by ensuring markets to their collected produce and fair prices. A wing of it is D R Depot (Daily Requirement Depot) which keeps all groceries needed by tribes and supplies them at reasonable prices.

The people are from an ethnic group called 'Koyas'. There are 63 households in the village divided into two clusters with a distinct gap in between. To a common eye they all look alike. But a deeper probe did reveal that a rigid social stratification exists between them. Koyas have a social hierarchy which has four communities in all, each having a specific status in their society. They are Dorasetty Koyas, Linga Koyas, Koyas and Gothilla/Gutta Koyas - in that order. Thippapur is inhabited by the Koyas and Gothillas. The Koyas look down upon Gothillas who are settlers from other places and there also exists a distinct gap between their hutments.

### • Enter the village

In order to reach people as individuals rather than officers, we made our visit to the village in-cognito. We left the jeep and with only a few people accompanying us outside the village, and entered it on foot. Our first acquaintances in the village were children! A flock of them playing on and under a huge tamarind tree at the very entrance and their agility reminded us of little monkeys. When we approached them with the best smiles, a majority of them ran away at least for 1/4 of a kilometre and stopped. We had no other way but to force another smile and enter the village.

The houses of the village are located on either side of a country track which passes right through the village. As we entered the village we saw a few Koyas, but there were no traces of any curiosity on their faces. Their apathy gave us the first shock. Our attempts to enter into their community proved to be futile. However, we kept on cheering the children who are in good numbers in any corner of the

village. To our fortune, a few of them were willing to walk with us and so we proceeded further with them in order to see the whole village first.

As mentioned earlier, there is a gap between the houses making the village look like two distinct pieces. As we ventured to enter into the other part with our companions, suddenly we heard the adults of the front part of the village shouting at their children and saying something to them in Koya dialect. Since we couldn't comprehend the language we asked the children what it is all about. They explained to us that they are being warned by their parents not to enter this part of the village. To a question as to why they are asked so, these kids ran away without telling anything, leaving us in utter perplexity. The only problem that came to our minds was 'Naxalites'<sup>3</sup> which indeed made us think twice before taking another forward step but thankfully enough that was only momentary. We moved ahead.

As we entered this Gothilla inhabitation, there was not just the apathy, but also a lot of hostility towards us. Despite our repeated attempts to speak to them, people remained cold and silent. We settled down with a family which was sitting under a tree, the male member was busy making a wooden implement. We looked forward to break the silence and the opportunity came after some time when we got a chance to help him in making the wooden implement (by the co-author) and do up the hair of the woman (co-authoress). But this could hardly be claimed any breakthrough because, our repeated appeals to let us have an entry into their house were flatly turned down. Also we noticed that through they claimed that they just cannot follow Telugu, they do understand it and can reply. (The Koya tribe speak their own dialect but know Telugu language reasonably well).

---

<sup>3</sup> There are a band of insurgents concentrated mostly in the Dandakaranya belt of forests in India. They are follow Marxist - Leninist - Maoist ideology of class struggle and annihilation of class enemies. They fight against the existing system to bring in the Marxist-Leninist-Maoist brand of social order.

## • **The initial despair**

It was almost for 4 hours that we were roaming in the village and trying to establish rapport with the villagers, and we were increasingly thrown into disheartment. Then we pondered over the whole experience and wondered whether PRA is of any applicability in a tribal village whose lifestyles and culture are so vastly different from others. Also we reviewed whether we missed any opportunity to bridge the gap between 'us' and 'them'.

## • **The ice is broken**

We came back to the GCC building where we planned to camp since it was already 2.00 pm. We had not carried any lunch along since we thought that we could make some arrangement in the village itself. But after the wishers of hectic effort, it was clear enough that camping in the village was not going to be any cake walk. So, we had to send our people to fetch food for us from the nearby mandal headquarters. By the time we finished our lunch, it was around 3.30 pm. Many villagers who were not there when we landed in the village had come back. Many of them gathered in front of the GCC Depot as if to fetch their provision. But their big numbers showed us that our presence began to be felt in the village and perhaps they are interested in interaction. We greeted them and introduced ourselves by our first names and explained to them that we wished to live with them for a few days to study their life and understand their problems. This received a positive response and there was a preliminary exchange of information. While it was going on we noticed more and more people gathering. So, we proposed that we may all sit under a tree, since the afternoon was very hot, and carry on.

## • **...and we were accepted**

We all settled down under a big tamarind tree and the initial curiosities raised a high pitch. We learnt a great deal about their culture, practices, etc. A little later we asked one of the slightly grown up children to come forward to distribute the toffees we had with us. The distribution evoked a lot of happiness and satisfaction among the adults, and perhaps

they are more convinced that we are 'friends' only. Consequently, the situation relaxed and conversation became more open and serious.

### • **Splitting into small groups**

As the conversation became more serious, we noticed only a few people were sitting close to us and talking, the rest were non-participant bystanders. We thought should this continue, some of them might completely lose interest and depart the group. So, three of us (two authors + a helper who is also a Koya) divided the whole group into smaller sub-groups so that we could engage all of them and not miss any information. The natural accessibility phenomenon of woman engaging women, men for men was followed. Fortunately, the conversation got focused automatically on more personal difficulties. One group tried mapping and the remaining two separately on seasonality, Venn-diagramming etc.

### • **The mapping**

When we expressed our desire to know about their village. Many villagers started explaining us what is where by naming the direction and indicating them also. Some of them used their fingers to draw on the ground to explain to us. We offered them a sheet of paper and a few sketch pens and requested them to draw a map of the village. But, they refused to do so saying that they are all illiterate and so can't handle paper and pen. We had to convince and encourage them that there is no special difficulty in using them and they can be used with equal ease as they do with finger on the ground. After some time, the youth agreed to take the lead and in no time many more were drawn towards it. Initially they found colours and paper inhibiting perhaps as reflected in their reluctance and also in using a register to draw straight lines representing the road. Gradually the traditional wisdom came out and they did the job with utmost reverence.

The mapping went on very systematically. They firstly drew the road and placed houses either sides of it exactly as many houses as they are on the ground. Although all houses have scattered all over, they represented them in linear order. Other features like their agricultural fields, tanks, streams and location

of hand pumps and other community structures were depicted on the map.

The mapping not only helped us understand the village but also opened new concepts in understanding the capabilities of these people. If we help/facilitate their traditional wisdom and reduce the levels of inhibitions, perhaps we will have much more to learn from them.

We broke after the mapping was done since it was already 6 pm and women expressed their need to attend to household work. So, the rest of the time we spent discussing their seasonal activities with the few people who were left with us.

### • **We are one**

During the daytime conversation, we tried to explore their lyrics and dance styles, which they enjoyed explaining to us. So, it was decided to have a session that night. Unlike the non-tribal villages, in tribal villages, people go to sleep very late. Around 9.30 pm when it was all pitch dark (since the village is not yet electrified) the Koyas expression of life and culture began in the light of camp fire. A few men tied bells around their ankles and beat drums heavily, and women sang on a slow rhythm. Men and women danced together and separately. While the dance of men is heavy matching the rhythm of the drums women moved their steps gracefully to their simple harmonies. We ourselves joined in the festivities. The joining of hands and steps bridged the gaps and the jubilant members for the first time cracked jokes with us. Perhaps the feelings of 'us' and 'them' gave way to the concept of 'oneness' and we carried it on till midnight when we were exhausted.

### • **Helping the silent to speak**

Next day, we had no difficulty gathering people soon after they woke up; many of them came to us. We expressed our desire to see the things on ground as they exist. As we were discussing the plan of action, we noticed again that the dialogue is captured by a few and a majority of them shutting off. So, we divided the group into two - one entirely comprised of those who are vocal and the other of those who are keeping silent; and took them separately

for a round of the village (not exactly a transect).

A few hours of going around with them walking through their fields and forests was extremely enlightening. Even the ones who kept quiet in the beginning explained to us thoroughly in the simplest language where they wanted a check-dam on the stream, why the tanks bunds height has to be revised, why sluices have to be shifted etc.

• **Thippapur method: an alternative to Venn diagramming**

- We requested the villagers to name the departments they interact with regularly. We encouraged them to recollect the names. We noted down all the names.
- The villagers were asked to select stones representing various departments. The stone size was to be proportionate to the importance they attach to each department (i.e. the bigger the stone, the more important is the department/institution to them).
- When stones were selected and named accordingly, we asked them again and clarified/confirmed.
- During the next part of the exercise, we made a small circle on the ground and said it represents their village. We then asked them to place the stones in or near the circle. The guiding rule was that the degree of proximity is proportionate to the liking ('ishtam' in Telugu) they have for each department. The closer a stone is placed to the circle the closer the department is to their hearts.

The villagers were very quick to grasp the concept. Selecting and placing the stones evoked a lot of discussion among them, but quick consensus too. This helped us understand two aspects simultaneously. How important a given institution is to their lives, and how far the same department succeeded in reaching them. Interesting revelations emerged. For example, ITDA<sup>4</sup> which was

recognised by them as the most important department (biggest stone), was kept just outside the village. Similarly, the Forest, Excise and Policy Departments were kept very far from the village (their conflicts with them are well known). Their own system of village elders is the most dear to them and was placed inside the circle representing the village. The GCC got a place on the fringes, perhaps representing an acceptance of their services but as an outsider (Figure 1).

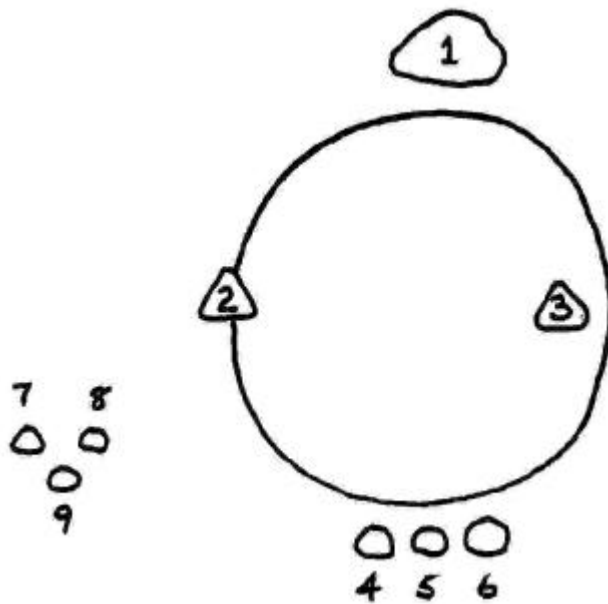
---

• <sup>4</sup> Integrated Tribal Development Agency which operates in areas which are having tribals as predominant inhabitants. As the

---

name suggests, it is a government agency looking after the welfare of the tribals through its development activities.

Figure 1



### • The Village model

The villagers had already explained during the round of the village what they want for the development of village, especially with respect to irrigation, agriculture etc. This had been incorporated in the map they drew earlier, but we thought, presenting the map to the whole village would not only be confusing, but also difficult to comprehend. Making a model of the village on the ground was thought to be a better option. It was almost evening. Most of the villagers were out to the nearby weekly market. We thought instead of waiting for others, we would make a beginning that might attract others. The children came to our rescue in realising this idea. When we asked them to make a big square using small stones besides the road, they participated with great enthusiasm. This activity attracted a lot of people and at this point, we explained to them that a village model that was to be made. Again their participation and method of modelling was fascinating. They marked the road, demarcated forests, borewells all around. They used stones to represent houses names and twigs to represent important trees. Locally available material - different colour soils, sand, stone, twigs were used. For marking all the changes/proposals they wanted for the village, a pink colour powder which we had carried from outside was used. While a few of

them were actually making, many of them present also gave a number of suggestions. After completion, they presented a village plan to the villagers which evoked a lot of discussion regarding their development proposals and after discussions changes were incorporated in a few cases.

### • The resentment

However there was some resentment among some of the villagers because, they felt that they are asked to do the same thing time and again i.e. what they wanted and where. Because, initially, it was mapping the previous day, transect in the morning and modelling in the evening. We felt it was true! We should have avoided one of them.....perhaps mapping.

### • Wealth ranking

To understand their concept of wealth with the idea that it might help us in developing insights into their outlook which would also help us examining the ongoing developmental programmes vis-a-vis their concept of economic growth.

The exercise involved the following steps:

- A list of all households in the village was prepared on the basis of the names

available with the GCC Depot Register of ration cards (on which commodities are sold to them);

- Some names have been written individually on small slips;
- A few villagers (6 of them) who were interested were invited for the exercise and asked to categorise their people on a wealth scale from the richest to the poorest; and,
- After all the slips were sorted, 3 slips were selected from each group and villagers were asked to explain why they did place each one in a particular category and not in the other. They were allowed to make any changes whenever they felt like.

Their criteria of wealth generally was based primarily on size of the agricultural holding and a little on the number of animals owned. The animal husbandry and collection of MFPs<sup>5</sup> actually contribute significantly to their economy and bail them out in lean periods. Still it is the largely land which gives them higher/lower status. Perhaps this is the reason why they were insisting all the time only about irrigation facilities whenever they talked of their problems and plans for development.

For ration cards, the villagers show themselves as separate units but are still perceived as a single household by the villagers. As we had used the list from the GCC Depot to save time which was premium for us, it created confusion at times.

### • **The seasonality analysis**

This analysis was done to know the income - expenditure dynamics of Koyas vis-a-vis the seasons. The precise objective is to identify the stress periods and their survival mechanisms during that time. But, whenever we asked them as to when a particular event/activity takes place, the reply invariably was "we do not know". After sometime, we realised that it is not really 'not knowing', but since the method of time keeping between

- 
- <sup>5</sup> Minor Forest Produce. These are Beedi leaves, Gums, Honey, some kinds of seeds, nuts etc. on which the people collect and market.

them and us was different, they were simply being negative perhaps because, they knew that they could not say it in our time scale. Therefore, we decided to represent the time to them in their scale as far as possible. We went about it as follows:

- We took the broad seasons known to them - Summer, Winter and Rainy season;
- We used their festivals as the markers on the seasonal time scale;
- For our sake we superimposed their time scale on our 12 month January-December calendar. Thus, a scale which can be used by both of us was produced - i.e. they spoke in their terms and we plotted them against our calendar;
- We identified agricultural activities (labour, harvest), MFP collection, wage employment and husbandry practices as major income accruing activities and plotted them; and,
- The main expenditures are marriages, diseases and festivals. Marriages and festivals mean heavy expenditure to them because of community feasts etc.

We found that every family in the village was in debt. These loans taken were generally for consumption purposes. The moneylenders were the shopkeepers from Cherla town and a few landholders from other villages. The rates of interest varied from 24 percent to 50 percent per annum. It was interesting to see how the animals and birds they reared were used during the stress period. They had a solution for the problem in form of an assistance to them in form of a revolving fund placed at the disposal of their village elders (a traditional institution). They wanted an amount of Rs.25,000 and also wanted to form their own rules etc.

### • **Review**

We felt that our desire to learn about their local medicines, beliefs in super-natural forces and more on seasonal issues could not be realised due to time constraint.

The third day, we devoted to the review of our work, preparing an Action Plan based on what

villagers suggested to us during the earlier two days.

We were particular about preparing an Action Plan in the village itself rather than writing it in our office and then returning because:

- i. We felt that if some information gaps existed, they should be filled there and then; returning a second time would involve a lot of delay;
- ii. After sometime, the plans may not be as spontaneous or represent what people need or want; and,
- iii. Above all, the chances of forgetting are significant.

The moments of leaving the village were memorable. The people wished us well and asked us to keep visiting them.

## • Lessons

Some broad lessons and points to ponder:

- The initial difficulties of 'breaking with villagers should not deter us.
- Two days is not enough; a day more might have been optimal. Due to the short time available the seasonality analysis was just done by us on their giving the information rather than them doing it themselves. Many other areas remained unexplored.
- Children are always a great help.
- Being the best judge of the situation, and bringing changes in the methods to adopt to the situation is the essence of the PRA techniques and too much emphasis on the methodology aspect is not called for.
- A failure of ours was with respect to involving the Guthila Koyas, who were somewhat less open than the other Koyas. The problem is more acute in caste villages where close identification with one caste groups may mean loss of many others.
- The paper and colour pens etc. though attractive also work as inhibitors - methods more familiar to the villagers and having more visual impact are preferable.

- Having a woman as one of team members was a great advantage in involving women, which is difficult for an all-men team.
- Going for a subtle entrance into the village without informing the people in advance may be a great experience in itself, but whether it is required we could not finally reach a consensus. But if a government official goes after making his schedule known, it somehow an expectations and the people generally start behaving as they think they are expected.
- How their traditional institutions can be fruitfully linked with the government agencies for selecting people and projects, and for grounding them has yet to be explored fully.

• **Somesh Kumar**, Formerly: Assistant Collector, Anantapur District, Andhra Pradesh, India, Now: Sub-Collector, Bodhan, Nizamabad District, and **A Santhi Kumari**, Assistant Collector, Karimnagar District, Andhra Pradesh, India

### NOTE

Somesh Kumar is now Sub-Collector, BODHAN, PC No. 503 185, Dist. Nizamabad, Andhra Pradesh, India.