Editorial

- **The Readership Survey**

A big thank you to everyone who responded to our readership survey, distributed with issue number 24 of *PLA Notes*. We had over 150 responses from 41 different countries. We were delighted to receive this feedback as we aim to focus *PLA Notes* to your needs. A readership survey is one method of hearing from you but we always welcome your views and comments, not only on the style and format of *PLA Notes* but in response to features and articles that are published.

Currently, we have 2341 subscribers to *PLA Notes*, 76 per cent from the South and 24 per cent from the North (see Box 1). Two-thirds of our distributions is to individuals or institutes with a total readership (through individuals sharing the Notes) estimated at over 7000 people. One-third of copies are held by resource centres and libraries. Through these institutions and local dissemination (e.g. photocopying the Notes) we appear to reach many more people.

We would like to share our analysis of the collective responses and our proposed changes to *PLA Notes*. The main themes of your comments relate to four areas: the current situation, presentation of *PLA Notes*, changes and additions, and reflections on impact.

**Current situation**

One third of responses rated the issue of *PLA Notes* that accompanied the survey as excellent and two thirds of you rated it as good. More than half of you describe *PLA Notes* as ‘essential reading’. While the publication is clearly filling a need, we want to continue improving it, especially the dissemination of information both to and between readers.

**Presentation of *PLA Notes***

As for your views on the format of *PLA Notes*, here are the main points:

- keep the Notes informal and ‘hot from the field’;
- maintain the current length, content and language of articles, which was felt to be ‘about right’;
- maintain hardcopy distribution. Even those people who have access to Internet and electronic mail facilities prefer to receive a copy of *PLA Notes* by post. A hardcopy of

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**BOX 1**

154 readership surveys were returned from 41 different countries. From Vanuatu to Vietnam, the Netherlands to Nicaragua and Canada to Cameroon, we thank all of you who responded.

17 per cent of returned surveys came from the North and 83 per cent from the South. This is similar to the distribution of our readership, although Southern readers were slightly better at returning their surveys than Northern readers.

Excluding issues of *PLA Notes* distributed to libraries and resource centres, each copy is read, on average, by 5 people. Furthermore, most of you photocopy all or part of the Notes to give to colleagues and friends.

On average, more than half of our Southern readers use participatory methodologies at least once a month as part of their work. Although used less frequently in the North, this may reflect our more limited readership in this area and a more recent introduction of participatory learning. The responses suggest that the balance between Northern and Southern authors and case-studies in PLA Notes is ‘about right’. However, readers encouraged more Southern authors, particularly in Latin America, to share their experiences.
the Notes is easy to photocopy, share and use in training;

- use more illustrations/diagrams and cartoons to accompany the articles; and,
- use abstracts and key words.

We will try to incorporate your views on presentation into future issues of PLA Notes. However, we encourage you, as contributors, to be creative in compiling your articles and, where possible, use pictures rather than words. Illustrations can be used directly in training and make for easier reading of articles. We try to keep articles short to maintain the maximum number of contributions in each issue. Figures, cartoons and diagrams help you to get your ideas across and save space. We will also begin to use abstracts and key words to enable people to focus quickly on the main points of articles, so don’t forget to write a summary.

Possible changes and additions

We received many suggestions for developing and improving PLA Notes. These are the major points and our response to them.

- **Create greater discussion in PLA Notes by publishing readers’ letters and encouraging comments on previous articles.**

This issue includes a new section called ‘Feedback’ featuring articles which raise concerns that are commonly encountered in fieldwork and training. Feedback, in the form of tips, ideas and challenging reflection, is provided by another PRA practitioner whom we have asked to respond to the article. This is your forum to comment on any articles published in PLA Notes, so do send us your letters for inclusion. Don’t forget that ‘In Touch’ is also your space to network and provide information and news to other readers. Please continue to send us your contributions.

- **Include summaries of long articles.**

Because we receive many more articles than we can publish, we have introduced another new section entitled ‘Extracts’. This now allows us to share a greater number of inspiring experiences with participatory approaches. Many readers express feelings similar to those of a Kenyan respondent: “I would like to contribute [but] I need to make time to write”. This section contains short articles and should encourage you to put pen-to-paper and write a letter for the Notes. We will also highlight exciting and creative extracts from longer articles that do not meet all the criteria for full publication (see back page ‘Guidelines for Authors). Do send us short contributions for this new section.

- **Provide more information on training skills in PRA**

Beginning this issue, we will serialise our recently published ‘*Trainer’s Guide for Participatory Learning and Action*’ 1. This guide is written for both experienced and new trainers. It provides information and suggested exercises to help develop and improve training skills. We will cover a different topic in each issue, starting with Adult Learning. We will also maintain the feature ‘Tips for Trainers’ which contains short notes on practical exercises.

- **Keep special or semi-special issues**

We plan that all future issues will have a thematic focus on topics suggested by you. Each issue will also include a general section, enabling us to continue publishing innovative experiences outside of the main focus of the issue.

Box 2 shows the main features and articles that you would like to see covered in the Notes. A popular request was for more critical reflection on both the successes and setbacks of participatory learning in practice. This would link theory, practice and evaluation and, ultimately, lead to better practice. Another key topic was how participatory learning can be used in formal and non-formal education (including training). This would help develop a culture of participatory learning and

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1 *A Trainer’s Guide for Participatory Learning and Action* by Pretty, Guijt, Thompson and Scoones. Published by IIED. Price 14.95 + postage and packing (25% UK and Europe, 35% airmail). Available from Marilyn John, The Bookshop, IIED, 3 Endsleigh Street, London, WC1H 0DD, UK.
partnerships within institutions and schools and colleges.

We hope to address these topics in the future and welcome your articles. Theme issues scheduled for the next few issues include:

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<th>BOX 2</th>
<th>TOPICS THAT YOU WOULD LIKE TO SEE IN PLA NOTES</th>
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<td>Successes and setbacks in practice and experience</td>
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<td>Critical analysis of experience</td>
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<td>Participatory monitoring and evaluation</td>
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<td>Developing the theory of participatory learning</td>
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<td>PRA in the project cycle</td>
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<td>PRA in formal and non-formal education</td>
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<td>Methodologies and innovations</td>
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<td>Natural resource management</td>
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• Policy and Institutionalisation of PRA (drawing on a workshop that brought together PRA practitioners from around the world, held at Institute of Development Studies, Sussex in May 1996);

• Complementarity, the use of participatory learning in combination with other research and planning methodologies;

• Fishing communities and participatory learning experiences; and,

• Participatory monitoring and evaluation (as expressed by one of our readers "And after PRA, then what??").

Please send us your contributions on any of these themes.

Reflections on impact

This is the 26th issue of PLA Notes published since 1988. We are particularly keen to encourage papers that reflect on and evaluate the role of participatory learning in development processes. In the words of one of our Indian subscribers:

"Many of the papers still show an excitement with the methods themselves and end with some general conclusions. Readers can be encouraged to write in with more information about what happened after the PRA exercises were completed and how the outputs were put to use to initiate some action".

While we are interested in methodological innovation, it is also time to reflect on where PRA has led us, the difference it has (or hasn’t made) in the long and short term, and directions for the future.

Please continue to respond to any of the issues raised in PLA Notes. Do send us drawings and cartoons to illustrate your work. We look forward to hearing from you.

• About PLA Notes 26

This last general issue of the Notes covers a range of topics, such as economics, agriculture, health and methodological innovation using case-studies from eleven different countries.

This issue begins with two papers with an economic theme from Kenya. Emerton and Mogaka describe a method of valuing domestic resources using locally meaningful economic indicators. Simanowitz describes how PRA can be used to enable communities to explore the effects of macro-economic policies on livelihood strategies. His example explores the effects of Structural Adjustment Programmes on peoples’ subsistence strategies.

Continuing the policy theme, two papers (Hürlimann and Jufer, Schmidt) describe the use of PRA in urban and rural communities in Switzerland, a country under-going massive changes in agricultural policy.

Several papers develop or adapt PRA methodologies. Kersten, working with Australian graziers, describes how illuminating discussions can evolve during matrix ranking. Östberg uses mapping to enable communities to project into the future and examine the impact of changing land use practices and settlement patterns. Using a village picture book, Mazzucato and Niemeijer share farming experiences between Burkina Faso and Dutch farmers. Shreedhar’s article describes the use of a range of PRA methodologies by a Southern
NGO in India, enabling people to combat STDs and AIDS.

Timlin describes a participatory approach to rural livelihood monitoring developed by Oxfam in Southern Sudan. Using local enumerators and many different tools and indicators, the scheme is designed to provide early warning of displacement triggered by insecurity, food shortages or other impending emergencies.

Participatory learning within institutions is addressed by several papers. Gosselink and Hoeberichts describe their approaches to introducing PRA to international agricultural research at the IIMI, the International Irrigation Management Institute. Alembi, Nabwile and Mburu describe the use of PRA, particularly semi-structured interviews, by the Kenyan Agricultural Research Institute (KARI) to enable it to better focus its research activities to real, local needs.

Kumar outlines a proposal to promote a participatory institutional culture within organisations by adapting Japanese quality circles. Finally, Narayanasamy describes a method of process observation to document and evaluate the implementation of PRA and maintain high standards.

Extracts includes contributions by Baum and Mulaa. Baum describes how coloured papers can be used to help find a common understanding for complex themes in natural resource management. Mullaa describes her first experiences of participatory learning in Kenya.

In the new Feedback section, Million Gebreyes, from Ethiopia, considers the timing of consultation with local communities, particularly in large scale development projects. When should consultation occur? Parmesh Shah, from India, provides refreshing insights into the consultation process. We look forward to receiving other comments on this, or any of the other articles in this issue. Happy Reading!
Participatory environmental valuation of forest resources in the Aberdares, Kenya

Lucy Emerton and Hezron Mogaka

Introduction

Most of the closed canopy indigenous forests in Kenya are gazetted as Forest Reserves and managed by the government Forest Department under a system of strict protection. But protection has been an inequitable and ineffective means of forest conservation. It has prohibited access to vital forest resources and generated little local support. Forest planners and managers have bypassed local communities and their constraints and priorities in the conservation process.

The Forest Department are attempting to move away from ‘traditional’ protection measures - preventing human access by policing and legal bans - to a system which recognises the dependencies and needs of local communities and integrates them into forest conservation. Little is known about how and why people use forests in Kenya. We describe an attempt to gauge the value of subsistence forest use in the Aberdares Forest. This formed part of a wider community consultation exercise to plan for future forest conservation.

Developing participatory valuation techniques

Forest resources form an important part of domestic subsistence and local livelihoods in the area around the Aberdares. We needed valuation techniques that would allow people to define forest values within the context of their own perceptions, needs and priorities rather than according to our categories.

Most forest uses are illegal. People are reluctant to speak openly about their forest activities because they fear arrest. Some activities also have ritual or cultural significance, and knowledge is considered the preserve of specialist groups. Households are reticent in the face of direct questioning. However, using pictures of different forest activities (collecting fuelwood and building materials, gathering medicines and wild foods, grazing livestock, making hives) helps to stimulate discussion (see Figure 1).

We use these pictures to value forest use. Cash measures have little relevance in a subsistence economy such as the Aberdares. We had to find a numeraire for valuation which forms part of the local socio-economy, has wide significance as an item of value, and can be translated into a monetary amount, the ‘currency of decision-makers’. We asked people what they thought was the best measure of value in their community. This varies between different communities, and includes a radio, a bicycle and a milk cow in villages around the Aberdares (see Box 1). Wherever possible we try to use a single indicator within the same community for consistency and to allow comparison.
BOX 1

FOREST VALUES FOR MAMA NJOROGE, A CASE STUDY

Mama Njoroge chose a radio as the numeraire for valuation. Although she does not own one herself, she often listens to her neighbour’s radio while she is working on her farm, and is aware of how much it costs to buy. This is how she valued forest resources:

1. Fuelwood
2. Grazing
3. Construction
4. Honey/ivies
5. Medicines
6. Wild foods
7. Hunting
8. Timber

Forest use is worth nearly KSh 9 000 a year to Mama Njoroge, over half as much as the annual net value of food production on her shamba (garden). Like most households in the area Mama Njoroge relies on the forest for a range of subsistence items because they are unavailable elsewhere. She collects fuelwood every day with a group of women from the village. Although she does not hold a licence she knows that the Forest Guards will not arrest her if she pays a small bribe (e.g. maize flour). While she is gathering fuelwood, she may also gather herbs or plants which she uses in her role as midwife. She values these medicines but thinks they are not as important as forest products, such as fuelwood, that directly sustain the household.

Because her farm is small and most local land is under cultivation, there is no space for pasture. Glades in the forest provide the only local source of grazing. They are highly valued because livestock are an important part of household security and wealth. Mama Njoroge’s grandson takes her cattle into the forest everyday and cuts grass for zero-grazing. He stays at some distance from the herd because he is afraid of being caught and beaten by the Forest Guards. While he is in the forest, he sets traps for antelopes and hunts birds with his catapult. He roasts the meat and shares it with the other boys who herd nearby. Like the wild fruits and vegetables that the children gather, these foods are never brought back to the homestead. They are not considered ‘proper foods’ because they are not central to the family’s diet. They are not valued highly by Mama Njoroge.

Mama Njoroge lives in a mud and thatch house. The poles and roof come from the forest because there are no trees on farm and she cannot afford to buy timber frames. Construction materials are highly valued because they are difficult to get elsewhere and shelter is critical. Mama Njoroge’s son owns 16 beehives in the forest. He works in Nairobi and hires them to a relative, who pays for their use with a proportion of the honey harvest. Mama Njoroge uses the honey for brewing uki, a traditional beer, with which she pays her neighbour to plough her farm each season.

Figure 1. Examples of pictures used to value forest use in the Aberdare
First we perform a scoring exercise using the picture cards. People order these cards in terms of their perceived importance to the household. This leads to further discussion about how and why different forest activities are carried out, and why they are important. Counters such as seeds or stones are distributed between the different pictures of forest products and an additional card depicting the chosen wealth item, according to their importance and perceived value. Using the number of counters allocated to each card, forest products are translated into ‘wealth item equivalents’ and ultimately into cash amounts which can be translated into an annual forest use value (see Box 2).

**Lessons learned**

We learned a number of lessons from the Aberdares experience concerning valuation, participatory techniques and forest planning:

**Using a market paradigm to value forest use**

Most environmental valuation techniques rely on asking direct questions about actual, surrogate or hypothetical market behaviour. In the Aberdares, the market model would be misleading. The forest-adjacent area contains a subsistence economy where cash prices have little relevance as a frame of reference or indicator of value. There are also no market substitutes for many forest products because of their unique characteristics or because alternatives are unavailable. Social and economic categories are not universal and do not necessarily correspond to our idea of ‘markets’. Thus, it is more useful to base valuation on locally meaningful categories than on an inappropriate and externally-imposed model.

**Using pictures as a tool**

The use of pictures helps overcome people’s reluctance to respond to direct questions about sensitive topics and stimulates open discussion about forest use. We found that picture categories are not universal. When we drew pictures of forest resources they were often misinterpreted or given additional meanings we had not intended. When people drew their own pictures they had less ambiguity and incorporated other information about forest use.

**The broader context**

Values are meaningless unless they are related to people’s broader environment. Forest use forms part of broader livelihood strategies and is influenced by wider needs and priorities.

**Translating local values into the language of decision-makers**

Decision-makers operate within the context of a cash economy and subsistence forest use is compared with other market activities. This exercise demonstrates how it is possible to link local categories of value and find a common ‘currency’ which can bridge the gaps between commercial and subsistence activities. However it also raises a number of questions about the reasons for valuation. By quantifying subsistence activities, were we decontextualising local perceptions for the sake of easy, top-down planning? Participatory forest management in the Aberdares involves much more than just representing the value of domestic forest use. It will require dialogue with local communities at every stage of the conservation process, and real rights to forest access, use and management.
BOX 2

STEPS IN VALUING FOREST USE FOR ABERDARES HOUSEHOLDS

i. Scoring forest uses by allocating counters.

```
<table>
<thead>
<tr>
<th>Forest Product</th>
<th>Points Allocated</th>
<th>Points in radio equivalents</th>
<th>Overall value (KSh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>2</td>
<td>2/4 = 0.5</td>
<td>0.5 X 10 000 = 5000</td>
</tr>
<tr>
<td>Medicines</td>
<td>6</td>
<td>6/4 = 1.5</td>
<td>1.5 X 10 000 = 15 000</td>
</tr>
<tr>
<td>Honey</td>
<td>4</td>
<td>4/4 = 1</td>
<td>1 X 10 000 = 10 000</td>
</tr>
<tr>
<td>Building materials</td>
<td>7</td>
<td>7/4 = 1.75</td>
<td>1.75 X 10 000 = 17 500</td>
</tr>
<tr>
<td>Wild foods</td>
<td>3</td>
<td>3/4 = 0.75</td>
<td>0.75 X 10 000 = 7500</td>
</tr>
<tr>
<td>Hunting</td>
<td>1</td>
<td>2/4 = 0.25</td>
<td>0.25 X 10 000 = 2500</td>
</tr>
<tr>
<td>Grazing</td>
<td>8</td>
<td>8/4 = 2</td>
<td>2 X 10 000 = 20 000</td>
</tr>
<tr>
<td>Charcoal</td>
<td>4</td>
<td>4/4 = 1</td>
<td>1 X 10 000 = 10 000</td>
</tr>
<tr>
<td>Fuelwood</td>
<td>7</td>
<td>7/4 = 1.75</td>
<td>1.75 X 10 000 = 17 500</td>
</tr>
<tr>
<td>Radio</td>
<td>4</td>
<td>-</td>
<td>10 000</td>
</tr>
</tbody>
</table>
```

ii. Translating forest products into `wealth item equivalents' and overall values.

iii. Dividing lifetime values to give annual values, using the formula:

\[
\frac{1}{T} \sum_{t=1}^{T} \frac{V}{(1+r)^{T-t}}
\]

where T is the total lifetime of the wealth item (10 years), V is the lifetime value of the forest activity, r is the discount rate (10%) and t the year.

<table>
<thead>
<tr>
<th>Forest Product</th>
<th>Overall value (Ksh)</th>
<th>Average annual value (KSh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>5000</td>
<td>877</td>
</tr>
<tr>
<td>Medicines</td>
<td>15 000</td>
<td>2 630</td>
</tr>
<tr>
<td>Honey</td>
<td>10 000</td>
<td>1 753</td>
</tr>
<tr>
<td>Building materials</td>
<td>17 500</td>
<td>3 056</td>
</tr>
<tr>
<td>Wild foods</td>
<td>7 500</td>
<td>1 315</td>
</tr>
<tr>
<td>Hunting</td>
<td>2 500</td>
<td>436</td>
</tr>
<tr>
<td>Grazing</td>
<td>20 000</td>
<td>3 506</td>
</tr>
<tr>
<td>Charcoal</td>
<td>10 000</td>
<td>1 753</td>
</tr>
<tr>
<td>Fuelwood</td>
<td>17 500</td>
<td>3 056</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>105 000</strong></td>
<td><strong>18 408</strong></td>
</tr>
</tbody>
</table>

Source: PLA Notes (1996), Issue 26, pp.6-10, IIED London
• **Conclusions**

Valuing subsistence forest use around the Aberdares has provided useful information for conservation planning. Most importantly, it demonstrates the significance of forest use in local livelihoods and household subsistence, especially for resource poor-households who have few alternatives.

- Conserving the Aberdares Forest has been difficult to justify in economic terms. Forest use has been compared to other land-use and investment options which are perceived to be more profitable and give wider and more immediate benefits to society. The high value of local forest use, and its central role in livelihoods, provides an important justification for maintaining the area under forest cover. This value is in addition to the less tangible ecological benefits provided by forests;

- Quantifying forest values highlights the heavy costs forest protection has incurred on local communities by removing legal access to vital sources of subsistence. It also demonstrates the benefits of a conservation system based on sustainable forest use according to local needs and priorities rather than on protection and exclusion;

- The high value of forest resources for local populations is linked to local forestry knowledge and practices. This is reflected in a range of customary management systems designed to conserve highly valued forest resources. These mechanisms provide valuable building blocks for participatory forest conservation.

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**NOTES**

The methods developed in these notes have been refined and applied to other forests and situations in Kenya as part of a two year study funded by ESCOR. Copies of the summary report *Valuing Domestic Forest use: Communities and Conservation in Kenya* are available from Natural Resources Adviser, BDDEA, Box 30465, Nairobi, Kenya.

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2

Analysing the impact of macro-economic policies using PRA in Mwingi District, Kenya

Anton Simanowitz

• Introduction and objectives

This paper describes how we used participatory research to explore the impact of macro-economic policy, in particular Structural Adjustment Programmes (SAPs), on rural people’s livelihoods. The research was undertaken for ACTIONAID-Kenya (May - July 1994). PRA methodologies were used to enable rural people to analyse economic changes and identify development options for augmenting livelihood strategies, with or without the assistance of ACTIONAID.

Kyuso, Mwingi District, is a semi-arid area that supports subsistence agriculture. Much of the household economy is cash based and crops are sold to pay for school fees, uniforms, health care, consumer goods and food stuffs. Cash income is also received from non-agricultural sources, such as remittances from household members living in town, from casual labour on neighbouring farms or in local areas and from the sale of handicrafts. In drought years, non-agricultural sources of income, together with local coping strategies, comprise the main livelihood base.

One of the central aims of this study was to explore relative price changes. The effects of devaluation on imported or exported goods is one major area of change. Through a study of price changes at a macro-level it was possible to develop a picture of relative price changes. A study of the local economy and price changes in the stores and markets (facilitated by the existence of an ACTIONAID Community Based Food Security Monitoring System) allowed me to work with local people to

analyse local price changes in relation to national changes.

Over a period of two years and at both a national and local level, there had been high inflation in purchased goods, but low rises in producer prices. However, these changes were not uniform, and the understanding of the relative price changes was key to understanding the impact of these changes on household livelihood.

The research sought to gain an understanding of the range of livelihood structures in the area (e.g. goods bought and sold, reciprocal labour, casual labour for cash or kind, bride-price payments), and to explore relative changes in the value of these commodities over recent years. The aim was to relate these to both macro- and local level market changes as indicators of the effects of the economic policies on local subsistence practices.

• Application to development process

Macroeconomic changes, such as SAPs, create permanent or long term structural changes in people’s livelihoods. Previous sources of income may no longer be as rewarding, and patterns of consumption and use of services may have to change. However, there may be other areas which can be developed to capitalise on improved prices.

For the participants, the research provided an opportunity to analyse recent livelihood changes and to identify those aspects which had decreased or increased in relative value. This is important in assisting people to change their
livelihood structures. It helps them to cope with the effects of permanent or long term economic changes which render previous strategies less effective.

Participatory methods provided clear and visible representations of changes in livelihoods. They led to the identification, by both the participants and researchers, of possible ways to adapt livelihood strategies to cope with changing economic conditions. The research was useful to ACTIONAID for designing development interventions that are sensitive to structural economic changes and which provide communities with support that is appropriate to changing circumstances. The findings were left with the participants and the ACTIONAID staff to take forward.

- **Methodology**

Matrix scoring exercises formed the basis of this approach and was used with a variety of informants, both individuals and groups. ACTIONAID had been working in all the villages for some time, concentrating on those people who made up of the poorest 20 per cent of the village (previously identified through wealth ranking).

I worked with ACTIONAID field workers who had developed relationships with the communities and so was easily accepted. I found people were willing to be involved in the research.

A number of items were identified in interviews as important in household livelihood. Since the focus was on livelihood rather than income, these included non-cash items such as labour entitlements and bridewealth. Items for income and expenditure were indicated on one side of the matrix with 'dates' shown along the top. The dates chosen were the previous drought in 1992 and 'current' (1994, also in a drought and therefore providing a comparable situation). This two-year period also coincided with the introduction of the SAPs under study and the droughts, as memorable local events, provided a good basis for comparison.

Informants used stones to indicate the relative costs of the commodities and show their relative incomes. In all cases, the results demonstrated large declines in income relative to expenditure (see Figure 1). Relative price changes were also apparent.

![Figure 1. Relative changes in purchasing power. N.B. The figures imply a decrease in purchasing power of 50% despite an increase in income of 40%.](image)

Source: PLA Notes (1996), Issue 26, pp.11–13, IIED London
In the next stage, participants were asked to analyse their own situation. They identified areas where their costs had increased disproportionately to their income, and also where their income had increased to approach its previous value. Participants also indicated their income and showed, with stones, what that money could buy in the previous drought year and in the current marketplace. The very dramatic visual image of declining piles of beans, representing incomes, allowed this to be achieved relatively easily.

During the analysis, the ‘best’ sources of income, in terms of their relative value, were identified and possible changes in income-generation were discussed. The analysis showed ACTIONAID how the value of the dominant forms of livelihood had changed, and suggested areas in which income-generation could be productively facilitated.

• **Research Issues**

Despite the potential complexity of exploring macro-economic policy, the villagers quickly understood and participated in the tasks. In some instances, the use of stones to show relative values was a difficult concept and was replaced, on the initiative of the participants, with actual values. In many cases, we worked from the concept of income and expenditure over the last week and tried to broaden this to a more general level to apply to different seasons. The ability to remember prices is an obvious problem in trying to make general comparisons of economic value over time. However, because of the dramatic nature of the changes, a very clear pattern of relative values emerged. The exercises achieved visually dramatic results which stimulated analysis and discussion amongst both the village participants and ACTIONAID field staff.

While all the participants, both staff and villagers, were aware of SAPs, the research served to focus attention on the practical effects of economic policies. This was a great learning experience for the ACTIONAID staff. Furthermore, it raised questions concerning the type of development interventions which were being implemented.

I hope this kind of analysis can be broadened to other villages and in other countries. The participatory approach should enable the real difficulties, opportunities and constraints that are imposed on local people by macro-economic policies to be debated. Furthermore, it should promote development processes that are flexible to changing economic circumstances.

• **Anton Simanowitz**, Evaluation Services, Acornhoek Old Post Office, Acornhoek, P/Bag X420, Acornhoek 1360, South Africa.
Introduction

This paper describes how PRA has been used in an agricultural context in Switzerland. Its main focus is the most recent PRA project and the methodologies used. It also explores the impact of the PRA eighteen months after it was carried out.

LBL, the Agricultural Extension Centre, links scientific and political institutions with local advisory services and farmers. Its aim is to provide farmers with timely information and advice on improvements for their agricultural processes. In this context, PRAs are becoming a powerful methodology for interacting with the farming community.

Until recently, Swiss farmers did not have to worry about their income since agricultural policy was based on a subsidy system independent of the market. Switzerland pays annually 3500 million SFr in support for its agricultural sector. However, less than 4 per cent of the Swiss population work in agriculture and the remaining 96 per cent of the population are no longer willing to support the old agricultural system. Swiss production costs are high and consumers want prices comparable to other European market prices. A liberalisation of the market and a change of farming philosophy seems inevitable.

In the alpine borderland where trade and industry are scarce, the question of agricultural survival emerges. The solution seems to be found in regionally integrated agriculture, trade, industry and tourism. ‘To get to grips with the future together’ is a PRA programme initiated by LBL. It shows promising results in its first five years having identified new options for small scale farmers and rural people.

PRA in three alpine regions

The most recent PRA was conducted in November 1994. Three rural alpine regions were visited simultaneously during one week by groups of students and more experienced PRA facilitators. Workshops were conducted in Isenthal, Safien and Lungern. Farmers and representatives of the local trade and tourist industry conducted intensive talks about their situation and prospects for the future.

The research teams consisted of 6 representatives of LBL, 2 extensionists, 15 students and 3 teachers from the Swiss technical College of Agriculture in Zollikofen (SIL), 2 social anthropologists and 4 students from the University of Zurich, together with 7 extension officers from Safien, Lungern and Isenthal. Most of the participants were using PRA-methods for the first time.

Crucial to the success of this project was the preparatory work undertaken by LBL and local groups and extension officers from the three alpine regions during the year prior to the workshops. This groundwork was invaluable in motivating local people to participate in the PRA project.

The aim of the PRA was to analyse the status of alpine communities and generate new ideas for the future. The research provided a platform for learning and action and a catalyst for realising the opportunities, hopes, fears and ‘crazy ideas’ generated by farmers and the local trade and
tourist industry. However, it became clear that PRA has to be part of a much bigger and more complex regional development process and is not an end in itself.

- **Methodology**

After a two day training in the methods and philosophy of PRA, the three research teams left for their destinations in the Alps. Seven days of practical PRA-field work were carried out. An initial meeting was arranged between extension officers, local working groups and facilitators. Transect walks were undertaken in the villages, which provided first impressions of both the potential and problems of the particular region.

Subsequently, semi-structured interviews (SSIs) were carried out, by pairs of outsiders, with 25-30 local farming families and representatives of the local trade and tourist industry. The SSIs focused on future projects and ideas. The interview teams were changed for each SSI. This had several advantages:

- promoted interdisciplinary teams;
- promoted mixed teams of women and men;
- different teams led to different questions, discussions, reflections and, ultimately, more viewpoints (triangulation);
- anonymity of the results could more easily be ensured (a very important point); and,
- from a training perspective, the opportunity to work with very different personalities was a valuable learning experience.

Each SSI was discussed immediately after completing it. In order to visualize the interview, the main points were highlighted on coloured cards: green cards carried opportunities and the possibilities and wishes expressed by our interview partners, yellow cards stood for questions and problems, blue cards were suggestions and plans for pragmatic action and pink cards represented ‘crazy ideas’. We explicitly asked local people to express their ‘crazy’ ideas to induce creative thinking.

In Lungern, evening workshops were held in the first three days of the PRA process. These covered topics suggested by the local extension officers and working groups. In Safien, an additional workshop was held on the Sunday with young people who were working or studying in town during the week. They felt strongly about their home valley and were concerned about its future. Additional group discussions with the youth of the valley highlighted that they felt marginalized because they were not part of the decision making process.

At the end of the week, the PRA entered its final stage: analysing the 500 cards carrying the data generated during the previous days. The cards were grouped into topics. Each general topic was represented on a poster. The four coloured cards gave an immediate idea of problems, hopes, fears, projects and crazy ideas. Box 1 shows the topics generated in this analysis (known as the ‘metaplan’ or ‘card and chart technique’, see also Schmidt, this issue).

The results of the project were presented to the local communities on Friday evening. In Safien, two-thirds of the population attended. After poster presentations by various members of the local working group and research team, people enrolled for topics which were of special interest to them. A new and lively communication process began and it was evident that the new projects were in the hands of the local population.
BOX 1

TOPICS RAISED IN SAFIEN

- human relations (communication)
- agricultural production
- manufacturing and marketing of agricultural products
- integrated tourism
- new concepts in the use of living space
- development of local trade
- cultural activities
- safer access roads

TOPICS RAISED IN LUNGERN

- communication
- alternative agricultural production
- promotion of cheese marketing
- combination of farming and tourism
- farm management
- sharing of labour

In Lungern the presentation was carried out exclusively by outsiders. This proved to be a wise decision as the main problems expressed during the week were lack of both political transparency and communication between farmers and the rest of the community. It was not to the liking of everyone present that these problems were discussed in public. Some politicians tried to impose their views on the future of the region. The scale of the conflict between farmers and others interests was only fully recognised a few weeks later when the house of a progressive farmer, who had expressed her feelings in the PRA, was defaced by hostile graffiti slogans.

Reflections on PRA in Switzerland

The large project teams worked well. Their success may be attributed, in part, to an intense introductory project discussion in the first two days. We are concerned that the careful and vital preparation and support required for such projects may be neglected in scaling-up this process. The quality of the PRA may then suffer and the project could be more of a burden than a help to the local population.

The follow-up to the PRA has still to be developed. The euphoric group forming at the end of each project week has not yet been supported in a satisfactory way. The outsiders leave and the people and regional extension services are left alone. There are new ideas, hopes and expectations in peoples’ minds and an open commitment to change. Yet when the support from outside has gone, a phase of disillusionment can follow. This is not necessarily a bad thing, as it gives the community time to scale their ideas to realistic dimensions.

PRA seems to be efficient in those areas where income is relatively evenly distributed, such as Safien. In Lungern wealth differences are more marked and a small group of individuals were keen to prevent changes to the community. PRA proved useful in providing a new approach to communication among community members. Without PRA and impetus from outsiders, community ideas are hidden and discussion may fail to occur.

- Long term impacts

We re-visited Safien in 1996 to see what progress had been made in the eighteen months since the initial PRA week. Our visit (see Box 2) suggests that PRA can initiate longer term changes within communities.

The results of PRA in Switzerland are encouraging: more than 50 per cent of the groups initiated since 1990 are still operational. Most of them focus on local community projects, such as market stalls to sell produce directly from the farmer to the consumer, improving the tourist sector or managing farms during vacations etc.. Some of the ‘crazy ideas’ seem to have influenced developments, including the production of Bio-Emmental cheese.
BOX 2
REVISITING SAFIEN, MAY 1996

The following topics are still being worked on since the initial PRA:

- Human relations (communication)

A group of 6 people meet regularly to discuss issues. They have organised activities such as game afternoons, a hiking group and are interested in starting a flat sharing community for old people.

- Manufacturing and marketing of agricultural products

A group of six women farmers sell their local specialities (cakes, bread, cheese) to a regional market. The group works with the tourist office to promote information for tourists on where to buy farm products.

- Integrated Tourism

A tourist office has been formed with over 70 members. They undertake a range of activities: information dissemination to tourists, improving footpath signs, installing benches and organising cultural events.

- Development of local trade

Local business people have organised regular meetings to discuss their problems and the potential for co-operation.

- Safer Roads

An information meeting was organised to which politicians were invited. This improved their understanding of local issues in the construction of a safer road.

PRAs, such as these, result in greater personal and institutional competence in community interactions, especially in managing delicate subjects. This applies to both local people and facilitators. Enthusiasm for the method and the problems of the region were sufficient to trigger the community’s own learning and action.

Encouragement of local people to become co-researchers empowers them; they are not just objects at the receiving end of an institutional output of ideas and products.

When there is a common concern in a community which fears for its own future, as is happening in Switzerland, there is also the energy and determination to do something about it and become innovative. PRA can mobilize this notion of common action.

- Maja Hurlimann  Landwirtschaftliche Beratungszentrale Lindau CH-8315 Lindau Switzerland and Heinz R Jufer Ethnologisches Seminar der Universität Zurich Freiensteinstrasse 5 CH-8032 Zurich, Switzerland.

There is a big gap between individual and public expectations of how to live together: what does the community expect from its members, what does the member expect from the community and what does the individual think privately about this? PRA is a means to make this pluralism apparent to the community through a common sharing of ideas. We consider that the main benefit of the project is that the community finds new way of communicating and planning ‘to get to grips with the future together’.
How to deal with 1012 ideas: PRA in an urban community in Switzerland

Peter Schmidt

• Introduction

Participatory rural appraisal (PRA) can generate a large amount of information that needs to be processed and analysed. We would like to share an approach to analysing PRA data from an urban setting in Switzerland. We used a metaplan, sometimes referred to as the ‘card and chart technique’, as a way to structure and visualise information (see Box 1).

BOX 1
METAPLAN TECHNIQUE

The metaplan was first developed in Germany for the moderation of groups of learners (Schnelle and Stolz, 1977). The pinboard method or metaplan is a visualisation technique that works with boards, large sheets of paper, different coloured square and round sheets of paper, pins, glues and pens. The basic rules are: not to write more than one idea on one card and to express the idea in about ten words (three lines) using a marker pen. The advantages include: everyone’s contribution is visible and cards can be moved and arranged into subject clusters. The visualisation process facilitates communication between group members.

Swiss agriculture is facing tremendous changes. Deregulation of the market, a strong Swiss franc that impedes exports and declining subsidies for the agricultural sector are forcing farmers to reorient their agriculture and their way of life. In this context, LBL, the Swiss Centre for Agricultural Extension, began to conduct PRA in local communities (see also Scheuermeier and Ison 1992, Hürlimann and Jufer, this issue). LBL is a service organization and resource base for the national agricultural extension service with experience in adult education and training. It also has a mandate to document experiences in agricultural extension in developing countries. It was in this context that LBL became familiar with PRA and learned from it to adapt PRA to Switzerland.

In November 1995, PRA was carried out in the small town of Willisau (Kanton Lucerne). This was the first time that an urban community had requested LBL to conduct a PRA in its area. Willisau is a small town of 7000 inhabitants in the pre-alpine region. For historical reasons it is characterised by strong partitions between the urban and rural population as well as between two dominant political parties.

The aim of the PRA in Willisau was to initiate constructive dialogue within the community over a short period of time. The project-week ‘Willisau 2001’ (as the PRA was called) was limited to six working days. Because it was of short duration, a high level of motivation was maintained. Twenty two people collected data for Willisau 2001, generating a huge amount of information.

• The main steps in the Swiss PRA

Following the request for a PRA, a local project group was formed. This took charge of the logistics, finance, public relations and identification of interview partners. The role of LBL was to prepare methodologies and form a multidisciplinary team of outsiders (including PRA practitioners, professors and students). The team was introduced to and trained in the
PRA methodology and the metaplan analysis during a two-day workshop.

The project-week began with a local familiarization by means of a transect-walk. Subsequently, information was gathered using a range of methodologies: fifty one ‘conversations around the kitchen table’ were undertaken (i.e. semi-structured interviews with families of Willisau) together with ten topical group discussions and workshops with school classes.

Immediately following each activity, the main themes were transcribed onto coloured cards by the facilitators: yellow for problems, green for wishes and opportunities, blue for proposed projects and red for crazy ideas. The number of cards generated per activity was pre-determined (although not strictly) so the facilitators had to focus each discussion to its most important statements. An internal code was added to these ‘minutes’ of the interviews to allow us to trace the source and author of each card. The cards were pinned on boards at the operation centre such that one row of cards represented one interview.

The information gathering was completed in three days. During this time, we generated 1012 cards, each representing a particular idea expressed by citizens of Willisau.

- From 1012 ideas to 12 subject-clusters

On the forth morning, the facilitators met to discuss the large number of cards. Team members reflected on their own discussions and identified the two most important subject areas in Willisau. The 22 team members came up with 44 subjects which were written on cards. These were grouped into clusters of similar or related subject cards. These clusters were given working titles and each one pinned to a separate board.

The next step was for the facilitators to assign their own ‘minute-cards’ from interviews to the respective subject-clusters. A number of cards could not be allocated and so a second generation of subject-clusters was formed. The remaining cards were easily distributed following the same procedure.

This step was amazing! The group managed to reorganize all 1012 cards into twelve subject clusters in 90 minutes. The metaplan is extremely fast and efficient. The subject-clusters served as a starting point for the thematic analysis which resulted in the formulation of specific project proposals.

**BOX 2**

**RESULTS OF SWISS PRA**

It is only a couple of months since the PRA was completed in Willisau. However, one of the subjects discussed was the urgent need for a locality where the youth can meet. This has been debated in Willisau for 30 years but without decision! It seems that PRA has opened and softened old positions such that a youth club should soon become reality.

The impact of PRAs elsewhere in Switzerland include: co-ordination of forest management and fuelwood sales, sharing of agricultural equipment among farmers in remote valleys, establishing institutions for debate and exchange of information.

These results are measurable. But there have been other less obvious outputs. PRA has helped establish fora for feedback and have opened new ways to communicate and interact with and within communities.

The project-ideas were visualised on posters. On the final evening of the project week, the results of the PRA were presented to an audience of 350 Willisau citizens. During this evening, people had the opportunity to enrol for a particular subject. This was the first step of handing over and following up the projects that had been identified. The local project group and extension services provided support to initiate projects by convening the first meetings etc.. The first signs of change became evident at Willisau a couple of days after the project week (see Box 2). The town council, inspired by the PRA, decided to change the seating order of the township meeting to enhance participation.

The final role for LBL was to photograph the posters to provide the people with a photographic record of Willisau 2001. Furthermore, a one-day evaluation with the facilitators was undertaken, providing an opportunity to reflect upon the exercise.
can sort, analyse and visualise a large amount of information in a short time.

- Peter Schmidt, Landwirtschaftliche, Beratungszentrale Lindau, 8315 Lindau, Switzerland.

<table>
<thead>
<tr>
<th>REFERENCES</th>
</tr>
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</table>

statements. Can a complex situation be reflected adequately in this way? Are details lost that may become important at a later stage?

- clusters. In this example, the building of clusters was based on the experiences of the facilitators (i.e. just outsiders). We should complement this approach in future by enabling local people to participate in this process and by using the cards to structure the definition of subject-clusters.

- the method relies on pin-boards, paper, cards, felt-pens etc.. The availability and transport of this hardware could impede a wider application of this method.

- visualising complex ideas and concepts.

On balance, we feel the advantages of the method overweigh its limitations. Our experiences suggest that this efficient approach
Matrix ranking: a means to discussion

Stephany Kersten

Introduction

Matrix ranking was discussed by Simon Maxwell and Claude Bart in PLA Notes 22 (1995) in terms of its numerical outcomes. However, they suggest that ‘the discussions that take place while the matrix is being drawn up can be as illuminating as the matrix itself’. This paper is an account of that statement.

I conducted MR exercises with graziers in the semi-arid rangelands of western New South Wales (NSW), Australia. I used the method as part of semi-structured interviews (SSI), and later as part of two dialogue meetings between graziers, researchers and advisers.

I wanted to achieve an active process that not only aided my research, but also to begin a thinking process with the participants which would provide them with new insights.

The matrix ranking exercise: a thought process

Important plant species were selected while discussing the vegetation in different paddocks on the property. In the year of the interviews, western NSW was in a drought and only perennial shrubs could be observed in the field. Therefore, instead of driving a transect on the property, the discussion was held ‘at the kitchen table’, aided by a simple map of the property. The plant species mentioned by the graziers were written on blue cards. Criteria mentioned during the discussion were written on pink cards.

First, the blue ‘plant cards’ were ordered by the grazier in a general order from best to worst and so formed the top horizontal row of the matrix to be formed. Each plant was ranked for each of the criteria mentioned. The plant ranked highest for a criterion received a card with number 1, the plant with the next highest rating received a card with number 2, etc. Overall, the top five plants for a criterion were ranked from one to five and the bottom five plants were ranked from 16 to 20.

Plants that ranked somewhere in-between did not receive a numbered card to prevent the procedure from becoming too time-consuming. The numbered cards represent relative, rather than absolute importance.

During the MR, the participants explained why they put their cards in their positions. Perceptions were expressed about characteristics, conditions needed and values of plants and the importance of each criterion. The discussion which developed during the ranking was taped and later transcribed.

An important observation was that the MR attracted other people present in the house who initially did not participate in the SSI. Frequently, an interview was held with a grazier (usually male) at the kitchen table, while his wife was busy doing housework and listening to the conversation. During the MR she often joined in by commenting on the ordering of the cards, adding plants and/or criteria.

For practical reasons, no more than 20 rangeland plants were included in a matrix ranking and therefore 20 was taken as the number for the lowest scoring plant.
• Ranking in combination with semi-structured interviews

An informative discussion does not always occur during a ranking session. The SSIs, of which the ranking was part, aided in building an environment of confidence to make the ranking successful. The MR was always introduced toward the end of the SSI, while the first part of the SSI built up a relationship between the interviewee and the interviewer.

A MR on its own may be unsatisfying for the participant, because there would not necessarily be an opportunity to bring up important issues. An advantage of SSIs is that the participants get the space and time to steer the interview into directions they prefer.

• Evaluating and analysing the matrix rankings

The finished matrix was evaluated by the participating grazier by looking at the numbered cards each plant had received, not by counting up the total score. Sometimes cards were re-ordered, if plants appeared to be ranked too high or too low.

To analyse the matrixes made by the 11 participants, the plants ranked with cards numbers 1 to 5 were given the value ‘high’ and those ranked from 16 to 20 were given the value ‘low’. Plants with no card were given the value ‘moderate’. The combined matrixes were presented with the six most frequently mentioned criteria (drought resistance, fattening quality, cattle feed, sheep feed, winter feed, summer feed) and the combined ‘general’ ranking on the horizontal axis. The vertical axis presented the value (high, moderate or low), with the plant species filling in cells of the table (see Table 1).

• Ranking as part of a dialogue meeting

MR was also used as part of a dialogue meeting. This meeting was organised for graziers and advisers to meet in an environment of safety\(^3\) to discuss vegetation, vegetation management and alternative industries\(^4\). One proposed programme point at the meeting day was matrix ranking.

At one meeting, there was initial reluctance to rank important rangeland plants, because participants presented different land systems. Nevertheless, the participants felt the ranking would provide them with a useful discussion and they decided to rank plants of a sample paddock and concentrate on the criteria for evaluation. Again the discussion during the ranking was more important than the final matrix formed.

• Interpretation and feedback cycles

Information from MR discussions was ordered into themes and presented in the form of a booklet and audio tape to the participating graziers (Kersten 1993). A second round of visits was initiated and graziers were invited to comment on the information presented in the booklet and/or on the tape.

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\(^3\) Dialogue is different from debate. In debate, people have to defend themselves and the environment is often threatening. In dialogue, the environment is safe and participants are invited to express their understanding and listen to each other to build together ‘richer pictures’.

\(^4\) ‘Alternative industries’ are industrial diversifications of the activities undertaken on the properties, such as eco-tourism, or kangaroo harvesting. Most properties are primarily wool growing enterprises.
Table 1: A way of presenting analysed matrixes from different participants

<table>
<thead>
<tr>
<th>VALUE</th>
<th>CRITERIA</th>
<th>GENERAL</th>
<th>CRITERION 1</th>
<th>CRITERION 2</th>
<th>CRITERION 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>Plant A</td>
<td>Plant B</td>
<td>Plant A</td>
<td>Plant Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant E</td>
<td></td>
<td>Plant B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MODERATE</td>
<td>Plant F</td>
<td>Plant D</td>
<td>Plant C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOW</td>
<td>Plant B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant G</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The graziers were pleased to have access to the information provided by other graziers. They commented that most researchers pass by and are never heard from again. The option for graziers to comment on the written material was a way of giving participants ownership over their information. They were asked to comment and give their agreement, before third parties would have access to the information. After this, a revised version of the booklet was written.

- Comparing plant evaluations by researchers and graziers

Criteria used by graziers for evaluating plant species were very different from criteria commonly used by researchers for selecting native grasses for domestication (see Table 2).

Graziers focus on the value of plants for their stock. Researchers evaluate native grasses on their ability to survive, perenniality and seed production, independent of their value as stock feed. These different criteria reflect the differences in perception of rangelands by both groups.

Graziers see rangelands as a grazing system of which they are part, while researchers see rangelands as a natural ecosystem presently occupied by graziers. Critically, MR not only provided information about plant species, but also about the perception of the participants of the system they are working in.

The discussion during the rankings led also to a grazier classification of plants (see Figure 1). In the original publication (Kersten 1995) this figure was supplemented with plant species for each category. Each plant species was followed by a letter denoting its value: H for high, M for moderate and L for low value, in the same manner as explained for Table 1.

Figure 1. Grazier classification of rangeland plants in western New South Wales.

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5 Researchers involved in the ‘native grasses programme’ of New South Wales Agriculture (government department).
Table 2: Criteria for evaluating plant species mentioned by graziers and by researchers (domestication of native grasses) (Kersten 1995)

<table>
<thead>
<tr>
<th>CRITERIA MENTIONED BY GRAZIERS DURING MATRIX RANKING</th>
<th>CRITERIA USED BY RESEARCHERS FOR SELECTION OF NATIVE GRASSES FOR DOMESTICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STOCK RELATED CRITERIA</strong></td>
<td><strong>MORPHOLOGICAL CRITERIA</strong></td>
</tr>
<tr>
<td>• winter feed</td>
<td>• seed head architecture</td>
</tr>
<tr>
<td>• summer feed</td>
<td>• type of seed head (easy to harvest)</td>
</tr>
<tr>
<td>• fodder</td>
<td>• non-shattering seed</td>
</tr>
<tr>
<td>• drought feed/survival</td>
<td><strong>LONGEVITY</strong></td>
</tr>
<tr>
<td>• fattening value</td>
<td>• perennial</td>
</tr>
<tr>
<td>• palatability</td>
<td>• seed longevity and seed bank available</td>
</tr>
<tr>
<td>• good fodder</td>
<td>• a seed coat that enables the seed to respond to sequences of rainfall and reduces false germination</td>
</tr>
<tr>
<td>• reliability</td>
<td>• potential predation of seed by ants</td>
</tr>
<tr>
<td>• nutritional</td>
<td><strong>ABILITY TO ESTABLISH A SPECIES</strong></td>
</tr>
<tr>
<td>• nutritional for sheep</td>
<td><strong>PRACTICALITIES FOR THE LANDHOLDER</strong></td>
</tr>
<tr>
<td>• nutritional for cattle</td>
<td></td>
</tr>
<tr>
<td>• sheep feed</td>
<td></td>
</tr>
<tr>
<td>• cattle feed</td>
<td></td>
</tr>
<tr>
<td>• wool growing</td>
<td></td>
</tr>
<tr>
<td>• poisonous</td>
<td></td>
</tr>
<tr>
<td>• scouring</td>
<td></td>
</tr>
<tr>
<td>• nuisance</td>
<td></td>
</tr>
<tr>
<td><strong>NON-STOCK RELATED CRITERIA</strong></td>
<td></td>
</tr>
<tr>
<td>• winter growth</td>
<td></td>
</tr>
<tr>
<td>• summer growth</td>
<td></td>
</tr>
<tr>
<td>• drought resistance</td>
<td></td>
</tr>
<tr>
<td>• reliability</td>
<td></td>
</tr>
<tr>
<td>• fuel for burning for woody weed* control</td>
<td></td>
</tr>
<tr>
<td>• soil binding ability</td>
<td></td>
</tr>
<tr>
<td>• ability to regenerate</td>
<td></td>
</tr>
<tr>
<td>• potential predation of seed by ants</td>
<td></td>
</tr>
<tr>
<td>* ‘woody weeds’ are unpalatable woody shrubs</td>
<td></td>
</tr>
<tr>
<td>invading the area</td>
<td></td>
</tr>
</tbody>
</table>

* ‘woody weeds’ are unpalatable woody shrubs invading the area

Figure 1 and Table 2 suggest that a scientific ordering of plants, according to flower morphology, has little meaning to graziers. This also relates to the book *Plants of Western New South Wales* that is highly valued by graziers as the (only) guide to their vegetation. However, graziers found the guide difficult to use because plants are ordered according to family and genus.

They find plants by going through the book and looking at the pictures. When the picture matches reasonably well, they read the description for more information. This way of identifying a plant is very time-consuming and not always successful. A plant guide ordered according to their plant classification could aid their plant identification.

**Conclusions**

MR can be an important methodology in initiating a discussion on the ranked objects. The use of numbers can obscure this by focusing too much on the ranking itself and the final matrix produced, rather than allowing a discussion to develop. MR complements semi-structured interviews as the interview passes from talking to action, which makes the conversation more lively and participatory.

I also found that MR is best undertaken with individuals. With a larger group, consensus has to be reached in order to make a matrix. This might provide a lively discussion, but can also be frustrating if there is a wide diversity of opinion and experience.

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**ACKNOWLEDGEMENTS**

Thanks to the graziers in Western NSW and rangeland researchers with whom I discussed rangeland vegetation and vegetation management. Thanks also to Ray Ison for introducing me to matrix ranking, and Paul Scholte for his useful comments on earlier drafts.

**REFERENCES**


Looking to the future:  
Map drawing in Madah, Central Tanzania

Wilhelm Östberg

1. Introduction

The Burunge Hills, an area of about 300 square kilometres in Kondoa District, Central Tanzania, is rapidly being settled by small-scale farmers from more densely populated and degraded parts of the district. It is a time of new opportunities. *Twende kufyeka* (Let’s be off and clear new land) is a phrase on the lips of many farmers. More commercially oriented people see the possibility of harvesting finger millet from newly cleared areas and selling the produce at a substantial profit to breweries in the Arusha area.

When new fields are opened up in the Burunge Hills, vast numbers of trees are felled and burned on site. More often than not land is cultivated without any conservation precautions. Neither the village councils of the communities surrounding the hills nor the district administration are managing the recent colonisation of the hills. It is just happening. The authorities recognise that many people have legitimate demands to obtain access to new land, and one obvious solution is to accept that fields are cleared and livestock grazed in the hills. Such an attitude is supported by the ideology that land belongs to all the inhabitants of Tanzania as well as the political tenet that those who have *uwezo* (ability, capacity) should be allowed to use land to produce food.

Different ways of life now meet in the hills. In this formerly sparsely populated part of the district, land is now being sold, quarrelled over, and even becoming scarce. The immigrants and the Burunge agree that vacant land still remains in the hills, but they disagree on whether the remaining forests should be cleared or not. Many newcomers hold that the sooner the forest is gone the better. Additional settlers mean more people who can defend their interests, and who can help solve the problems of wildlife, lack of water, inadequate transport and so on. However, the people of the area, the Burunge, harbour no urge to transform the forest. They feel that the hills have already received more than enough outside settlers.

2. Madah, a new life in the hills

Madah is a rapidly growing community dominated by immigrants. They came with their minds set on obtaining land and large areas have been cleared. Since most immigrants cultivate with a plough, few trees remain in the fields. The immigrants also cultivate larger fields than the resident Burunge. They also came with experiences of how cultivating a surplus can provide improved living standards. They expect to live in houses made of bricks and roofed by iron sheets. They are used to having bicycles, ox ploughs, water points, radio receivers - goods seldom encountered in a Burunge home.

Madah farmers have also formed a CCM party branch, elected their own leaders and embarked on communal projects, such as starting a small school. The villagers have constructed a new road allowing traders from the towns of Arusha, Dodoma and Kondoa to buy at the farm gate. The small village centre is growing.

On the flat cultivated slopes approaching the Denesa river, which passes through Madah, surface erosion is common. In many fields the
crops look stunted or have simply been washed away. Figure 1 shows areas suffering from soil erosion. Where livestock pass, there is also much evidence of land degradation.

- **Map drawing in Madah**

The common opinion among the settlers is that Madah has abundant land resources for the community’s future needs. During a meeting with village leaders a map of the Madah area was drawn on the ground by six participants. It covered an area of about 20 square meters.

Drawing a map of the area and discussing it publicly had a profound effect on the perception of land use for a number of people in Madah. We had been told over and over again by the immigrants that the pastures and areas to be cleared were sufficient to meet their needs into the future. Faced now with a map showing that the cultivated area was bigger than the reserve areas, and also a poster we had prepared depicting a dramatically increasing population curve, many came to express their worries: ‘People increase all the time but the land cannot increase. Settlers arrive. The young start new families. Where are they to go?’

Not all of them worried, though. One influential member of the CCM branch committee reminded those present that no one gets land in Madah without a period of probation and that s/he can be given only 3 acres at most; that s/he must have a permit to move from the previous village and that any clearing must be supervised by the forest officer. Now, this is not the way land is allocated at Madah. As the official spoke, adding more and more details about how carefully the committee monitors the land resource, local people could not stop laughing.
As we probed deeper, the chairman was obliged to confirm that the party branch has no legal right to stop a newcomer, with a licence, from clearing land. Another member of the committee tried the argument that a local rule prevents livestock from moving along the slope on their way to the wells. Again people burst into laughter as we mentioned several cattle tracks proving the opposite. The local rule was clearly inappropriate: How do you make livestock heading for water take extra turns in an open landscape?

At this point several people expressed concern over the number of livestock brought into Madah from other areas and also from distant places in Hanang and Mbulu Districts. This was the first time we had heard such worries expressed by the immigrants. They had remained insistent that there was sufficient land for decades to come. By contrast, the Burunge living in Madah had often suggested that there are too many people and livestock in the area.

The map-drawing exercise provided a new arena for discussing an issue which was not yet on the agenda. The discussions went far beyond the stereotypes about the community and gave rise to a new interpretation about land patterns of land use.

**Conclusions**

The majority of Madah residents are in favour of immigration to the area as this provide additional people to help build social institutions and promote economic activities. However, participatory mapping helped to focus local interest on the area’s natural resources. This enabled the local people to think about land use planning for the future.

The situation in the Burunge Hills is similar to changes now taking place in many other parts of Tanzania. The (varying) achievements of organised soil conservation work, or of land that was taken out of use because of the population redistribution during the villagisation process of the 1970s, are currently being superseded by new developments. It is becoming increasingly difficult to maintain a commitment to public control of natural resources, when entrepreneurial initiatives are expected to make up for diminishing government funds. In this situation participatory mapping can be a useful method for local communities to actively monitor and manage their natural resources.

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**NOTES**

This article is taken from *Land is coming up. The Burunge of Central Tanzania and Their Environments* (Stockholm 1995) by W. Östberg. Available from Almqvist & Wiksell International, PO Box 4627, S-11691, Stockholm, Sweden. Price: 282 Swedish Crowns

The field study in Burunge was carried out with Mr. Joseph Mduma, a forester with the Kondoa based soil conservation project HADO. Mr. Mduma lent not only his professional skills to the research but his gift for field work. Mr. Cassian Sianga, manager of the HADO project, participated in the mapping session. He has a long history of participatory work and we all benefitted from his experiences.

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A village picture book

Valentina Mazzucato and David Niemeijer

Introduction

At the beginning of our field work in Burkina Faso, we wondered how to approach villagers, given the importance of first impressions in setting the base for future working relations. We are studying indigenous practices of soil and water conservation from a technical and socio-cultural perspective. Our interest is in understanding the way farmers view their environment, in particular their indigenous soil and water conservation activities. Our research depends on establishing a relationship of trust between ‘us’, the outsiders, and the villagers. It also requires the time and patience of local people in participating in the project. We came up with the idea of providing villagers with an opportunity to make their own village picture book.

We hoped a village picture book would:

• Serve as an icebreaker for the relationship between researchers and villagers;

• Provide villagers with an opportunity to present village life which would act as a focus for discussion; and,

• Provide a gift to the village in exchange for their co-operation in the project.

In this article we describe the methodology that we used to make the picture book in four study villages. We present the benefits and drawbacks of this technique and provide a summary of undertaking a similar activity with Dutch farmers. We conclude with some reflections on this tool’s utility.

Methodology

We scheduled a series of four meetings in each of the four study villages.

The first meeting - Explanations

We met with the chief and other villagers to describe the aims of our project: to learn how people live and use their land and share these experiences with Dutch farmers. We explained that we would like to undertake many activities but would start by creating a book about the life and history of the village. The book should be composed of pictures that can be understood by everyone, regardless of their age, literacy or ethnicity. We explained that we would provide them with a camera and they should take photographs of ‘whatever they wanted to show us about their village’. We spoke in general terms to provide the greatest freedom of interpretation in what they should photograph.

We offered to make two copies of the book. We kept one copy for us to show to Dutch farmers. The other was for the village, to show to visitors or as a record for their children of how they lived. We asked the chief to appoint two men and two women photographers who should be old enough to know the village and its history well, but young enough to have good eyesight and be able to walk around.

The second meeting - Visiting

We held a second meeting for the chosen photographers to show us around their village (the female researcher accompanied the women photographers and the male researcher went with the male photographers). This meeting
gave us an opportunity to ask questions about the village in the context of the photo-taking session. The time spent walking and talking also allowed each of us to get to know two members of the village.

**The third meeting - Photography**

This was the photo-taking session. We provided each pair of photographers with an automatic 35 mm. camera and film. After being shown how the cameras worked, the photographers were asked to take pictures of their life and history. We accompanied the photographers, noting their comments and any information they provided. When they asked what they should photograph, we insisted that they should choose. We did ask them, however, to take pictures of natural situations and not to arrange subjects. We were careful with our wording so as not to suggest whether they should take pictures of people or objects.

**Figure 1. Presenting the picture book to the village**

![Presenting the picture book to the village](image-url)
The fourth meeting - Feedback

We returned with the developed photographs to the village. Each group of photographers was asked separately to order and tell a story through the pictures they had taken. They then pasted the photographs onto paper sheets. We asked them to find a symbol to represent women and one to represent men and to draw it on the pages. This enabled us to distinguish between the photographs taken by women versus those taken by men. The pages were put in plastic sheet-pockets and enclosed in a ring-binder. We asked if events or objects were missing and discussed what they would photograph in the future. Finally, the photographers presented the books to the rest of the villagers (whom we had asked to gather under a tree) and explained the story contained in the village picture book.

We made a second copy of the picture book for ourselves to bring back to Holland. Our copy is identical to the villagers’ book except that we included a written account of the story that the villagers had told us.

• Benefits

The picture book method was useful to us on various fronts. Our research on indigenous soil and water conservation practices requires an understanding of how villagers perceive their environment. This means learning about many aspects of life that we may not associate with soil and water conservation. The simplest way to explain this was to tell villagers that we were interested in learning about the way they live. This is too general to discuss in a public meeting and may arouse much suspicion. We found the picture-book a useful aid for showing people our interest in their lives. The photographs provided us with a purpose for being in the village and a focus for discussing different subjects (often starting with the question ‘why did you choose to take a picture of this?’).

We gained many insights on how local people view their village through the photographs that they had taken. The photographs also identified areas for further investigation, including gender differences in village perceptions. Although a small gift, the picture book provided the village with a tangible record of our research. The photographs sparked interest among the villagers and they actively participated in the final discussion.

They also asked us to repeat the method at other times of the year so they could record seasonally important activities in their lives. More importantly, the picture book allowed us to break through an ‘us and you’ situation because the picture book was a joint project that inspired confidence in the researchers and villagers alike.

• Issues arising

We found this method worked particularly well in establishing a collaborative relationship between researchers and villagers. However, this approach may not work more generally as many people are sensitive about having their photographs taken, even by other villagers. The first meeting should determine the feasibility of using a photograph-based approach to village appraisal.

The resources required should also be noted: at least one camera, facilities for developing photographs, sufficient budget to purchase film and pay for developing and the paper and ring binders for presentation. Furthermore, the quality of the information learned from the photographs depends on working with a ‘good’ photographer.

A potential disadvantage to this method is the time required. It took several meetings to develop a relationship with the villagers, and so this method may not be suitable for short projects. In principal, the time required may be reduced by using a Polaroid camera. In this way the project can be introduced, the pictures taken, ordered and pasted, and the final book presented all within one day. We have not tried this but it seems that some of the benefits of the picture book approach, particularly the discussion it provoked, may be lost.

Two researchers conducting sessions with the men and women simultaneously made this approach quite quick and reduced the chances that the two groups influenced each other. However, gender differences in local perceptions may be attributed to differences in the way the researchers presented the project to...
the groups or in the translations provided by the two interpreters working with the researchers. A way around this is to conduct the explanatory phases of the project jointly. It is important that the researchers specify in detail, and ahead of time, how they will explain the stages of the project to the photographers. This can prevent implying, through terminology, that pictures are ‘expected’ of one particular aspect of village life.

- **A Dutch parallel**

To enhance our exchange of information, we offered to bring a picture book of Dutch farming to Burkina Faso. Our methodology was similar to that described except the emphasis was on providing information and materials rather than on interpretation and confidence building. We made contact with Dutch farming organizations and asked two farmers to take pictures of their lives and farming practices to show to African farmers. To give a sense of the variety of farming practices in The Netherlands, we gave a 35 mm camera to both an organic farmer and a dairy farmer.

As with the African farmers, we tried not to influence what they photographed but asked the farmers to explain the significance of the photographs they took. We developed the photographs and placed them in a book in the order in which the photographs were taken. We added notes on the explanations and information provided by the farmers. In exchange for their time, we gave the farmers a full set of the photographs they took.

From the outset, we expected very different experiences through working with Dutch and Burkina Faso farmers. However, we were struck by the similarities in undertaking the exercise in both countries. First, both groups of farmers were constrained by the amount of time they could spend with us at busy agricultural times of the year. Second, an understanding of how to use cameras underpins this photographic approach to appraisal. We had to provide good instructions on how to use a camera to farmers from both countries. Finally, all the farmers provided both technical pictures and explanations of their work (e.g. how we plant, what crops we rotate, the problems with tractor ploughing) in combination with a more spiritual appraisal of their everyday life (including religion, life philosophies, family relationships etc.).

- **Reflections from a year later**

We conducted these activities a year ago and having returned to our Burkina Faso study villages, we can reflect on the utility and efficacy of the picture-book approach. We feel the picture book is an excellent tool for confidence building but feel it must be used with caution for exploring village perceptions of their environment.

We found the picture book a most useful way to establish trust and develop a dialogue between researchers and villagers. When we returned to our study villages after four months of absence, we were very well received and noted that the picture books were very much on their minds. Again, they asked us to conduct the activity at this different time of the year so they could photograph different types of activities and landscapes.

We added the outputs of the many joint research activities that we conducted with the villagers (e.g. PRA maps and genealogies) to the picture book. This provided us with a way to present our research results and obtain feedback. It also made our work accessible and reduced village suspicion about the research. Thus, the picture book became a mechanism to establish and maintain trusting relationships.

The Dutch picture books were a great success in the African villages. They provided a way to explain and describe a completely new and different way of farming to the villagers, most of whom have never been to the capital, Ouagadougou. The picture book created an exchange of information between the villagers and us, the researchers, transforming the research process from a monologue into a dialogue.

Our other main objective for the picture books was to gain insights on how villagers see their environment through their choice of photographs. It is difficult to determine how much we influence the choice of photographs through our questions, explanations of the project and the translations (working through an interpreter). More importantly, because only a few people are involved in the photography, we
obtain a limited number of personal, rather than ‘village’, views of life. Finally, the photographs are influenced by ‘chance’ in terms of what is encountered on the day during the season of study.

While we do not advise this as a stand-alone method for interpreting village environmental perceptions, we do recommend it as a useful way to get acquainted with an agricultural system. For example, the photographs highlighted important activities in the villages that were not immediately apparent to us, such as honey collection and gold seeking.

The picture book also sensitised us to the different ‘dialogues’ used by men and women. Men tended to have explanations of a technical or scientific nature while women’s explanations relied heavily on the magical or spiritual. Furthermore, we noticed gender differences in outlook. Men tended to take wide-angle pictures from a distance, including much of the landscape and many objects. By contrast, women took close-ups of people doing activities and included children in their photographs.

We feel that the picture book was a useful method not only in terms of providing a gift and focal point for villagers but in increasing our understanding of local farming practices.

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<td>A poster has been prepared presenting the four steps of making the picture book. Black and white, A4-size copies can be obtained from the authors free of charge. Colour copies in other sizes are also available upon request.</td>
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8

Living with STDs and AIDS: The Mother Saradadevi Social Service Society, India

Jaya Shreedhar

• Introduction

As day breaks over the town of Palani, near Madurai, hundreds of pilgrims throng the hilltop temple of Lord Muruga, the town’s presiding deity. One of the most popular pilgrimage centres in the State of Tamil Nadu, Palani is a mixture of the old and the new. In response to the burgeoning influx of pilgrims, a bewildering variety of shops, hotels, garishly painted lodges and tourist cottages has sprung up around the ancient temple.

At the same time, as in many other temple towns, prostitution in Palani has boomed. Although prostitution is officially illegal in Tamil Nadu, women from the vicinity come into the town to sell sex in the evenings. To escape the vigilance of the local police, they do their business in places that are deserted at night.

The number of people in Palani infected with HIV is unknown. However, as a temple town and the centre of a huge vegetable producing area, Palani is a crossroads for many thousands of temple visitors, truckers, traders and agricultural labourers. HIV is certain to be present.

"We heard that hospitals in the towns of Madurai and Dindigul were seeing increasing numbers of people with HIV infection and AIDS." says Prasanna Raja, secretary of the Mother Saradadevi Social Service Society in Oddanchatram, a small town an hour’s drive from Palani. "We realized that we had to do something. What we had imagined as a problem of Madras had arrived at our own doorstep”.

Founded by Prasanna and her husband Raja in 1988, the Society is named after the wife of the well-known Hindu spiritual leader, Ramakrishna Paramahamsa, who attracted a large following in the early part of the twentieth century. Saradadevi was a leader in her own right, whose work in promoting women’s education and the rights of widows was considered progressive at the time. The Society works on a range of health, environment and economic development programmes for women of different religious faiths.

• The AIDS project

The Society’s AIDS project started in Palani and the village of Porulur 90 kilometres away in January 1994. Its objectives were:

• to increase the level of information about STD/HIV/AIDS among women in prostitution as well as women living in the slums;
• to increase women’s knowledge of safer sex and increase the utilisation of condoms;
• to heighten women’s health awareness; and,
• to provide women with STD/HIV/AIDS prevention and support services, such as STD treatment facilities.

The project is employs two counsellors, who are professional nurses, and a group of twenty ‘animators’, mostly women, complete the team.
• **Beginnings**

The project began by identifying low-income women who spent at least part of the year in prostitution. The next step was to establish a good rapport with them and identify key informants. The animators visited the women every day to understand the types and extent of risky sexual behaviour, as well as existing beliefs and attitudes to HIV/AIDS. They also tried to understand how women were vulnerable to STDs and HIV.

The animators learned that many of the women from both rural and urban areas had more than one sexual partner. Many also had sexually transmitted diseases. A considerable number sold sex because of poverty. Most of the women who sold sex were 'family women'. They lived with their families and sold sex without the knowledge of other family members, in order to supplement the family’s meagre income. Wives were often the target of physical and sexual abuse by their husbands, many of whom also had sex with other women, including sex workers.

Although the animators were initially met with suspicion, their non-judgemental attitudes to the women’s sexual lifestyles eventually paid off. Importantly, many of the women were already familiar with the work of the Society, whose income-generating schemes and other programmes for women had won it considerable respect in the area.

At weekly staff meetings, the animators exchanged their experiences, documenting their progress by recording the numbers of women they had met and the STD cases they had found. Using locally available materials such as tamarind seeds, flowers or food grains, each animator kept a visual record of the women they talked with and the STD cases they encountered (see Figure 1).

Over time, the animators became more comfortable about discussing sexual activities that promoted the spread of HIV. They also found it easier to share ideas about how both men and women could change their behaviour to protect one another from HIV and other STDs. "We found the staff gained confidence," says Raja. "They valued their work and became increasingly sensitive and responsive to the problems of the women."

• **Women’s groups and PRA**

The Society’s main operational strategy is the formation of women’s groups, which enable women to work together in order to have more say in the decisions affecting their lives. Within the first six months of the project, 50 women’s groups - each with 20 to 25 members - were formed. Each group now meets regularly to discuss problems related to health, income, children, sexuality, and the attitudes and sexual behaviour of their husbands and other sexual partners.

In helping women’s groups to get started, the Society found Participatory Rural Appraisal (PRA) to be extremely useful. PRA helped the communities themselves to define, evaluate and influence their economic, environmental, health and educational status.

The following PRA exercises have been particularly useful as they allowed information to be displayed visually:

• **Mapping exercises** helped the women to understand what facilities were available in their area. It also helped to motivate women to form their own groups. The women drew a map of their town or village on the ground with a stick or with powdered chalk and added features such as schools, temples, houses, hospitals and water pumps. Using neem or tamarind seeds, they counted the number of men, women and children in their area and described the work done by each.

The exercise also enabled the Society to identify women in prostitution, and to verify their findings by cross-checking with key members of the community.

• **Seasonal analyses** helped the women understand how seasonal variations in their income affect their sexual vulnerability. In urban areas, during the festival months, a major share of the women’s income comes from selling fruits, flowers, pictures and pooja articles to pilgrims. Between festivals, many women sell sex to maintain their income.
In rural areas, women earn enough when there is plenty of work in the fields. During the dry months from April to September, however, there is little agricultural work available so the men migrate to the adjoining State of Kerala, where extra labour is required in the fields. The women are left behind in the villages, and many sell sex to sustain the household until September. “This analysis greatly helped us anticipate and plan for STD treatment and condom distribution according to the seasons,” says Sathyabhama, an animator.

- **Trend changes** enabled the women to analyse the changes they had experienced in their lives regarding work, illness, family planning, child bearing and sexual relationships. The exercise was conducted in small groups of two to three participants to encourage the free exchange of information related to sex. These laid the foundation for one-to-one discussions between animators and women in prostitution.

Using this exercise, women began to understand the underlying reasons for the spread of STDs and HIV, including the impact of male sexual behaviour, the influence of cinema, and the role played by modern transport facilities. Importantly, they also realised that preventing an HIV epidemic would require the cooperation of the entire community, particularly the men.

This prompted many women to try to discuss HIV, AIDS and STDs with their husbands and other sexual partners, and to obtain treatment for their STDs. Many also began to try to persuade their husbands and other sexual partners to use condoms.

Figure 1. Matrix ranking: animators depict their work visually using tamarind seeds and flowers. Credit: S V Raja.
- **Timelines** were used to help the women and society workers to understand the history of their village or town, their religion, their festivals, their customs and beliefs. The process was useful in understanding the relationships between prostitution and caste, religion and local politics. The exercise led to much discussion that cleared up some misunderstandings about women in prostitution, and also helped to promote caring attitudes and better self-esteem among the participants.

- **Well-being and wealth ranking exercises** were used to identify the criteria for rich, middle class and poor families. It was found that amongst the poorer families, there were more women who turned to selling sex, and Society staff decided to spend extra time with these women. STDs were also found to be most prevalent amongst these women and their husbands. The exercise also helped the Society to offer the most vulnerable women training for other means of income generation (see below).

- **Venn diagrams** were used to understand women’s relationships with agencies such as the police and health facilities. Women discussed police harassment, and their reluctance to seek STD treatment at government-run Primary Health Centres, where the staff often subjected them to ridicule and humiliation. This prompted the Society to intensify the STD services provided by its own health centre, and to send one of its nurses to help part-time at the STD clinic of the Palani Government Hospital.

- **Decision-making matrices** helped the women and the staff of the Society to identify the decision-makers within the women’s families. This exercise helped the women to discuss inequalities in their sexual relationships with men, and to explore ways of persuading their sexual partners to seek STD treatment and to use condoms regularly.

The PRA approach enabled the women - none of whom are able to read and write - to understand their economic, social and physical vulnerability to HIV and AIDS. The exercises had a profound impact on the women’s attitudes towards themselves. "When they realised that STDs did not originate in their bodies, but were given to them by their husbands or clients, they realised there was no reason to feel guilty or ashamed” says Raja. "They gained confidence when they learned that STDs could be easily and inexpensively cured or, better still, prevented by using condoms”.

- **Reaching out**

Using the PRA approach, the Society identified neighbourhoods where the men needed to be sensitised to AIDS. The staff visited these neighbourhoods, holding video shows of popular films to attract crowds. They then talked about AIDS and distributed pamphlets and condoms. Members of the women’s groups reported that these meetings were helping to make local men aware of the dangers of risky sexual behaviour, and of the need to use condoms to protect themselves, their wives and other sexual partners.

Home visits by the animators and counsellors have also helped to motivate women who are not group members to seek treatment for their STDs. The Society’s workers also explain how condoms can prevent STDs and stress their importance in protecting people from AIDS.

The number of condoms distributed each month is rising steadily. After a year of the project, women involved in prostitution began coming to the animators’ homes to pick up condoms whenever needed. A women’s group in one area also took a joint decision to follow a "no condom - no sex” policy with their clients.

With funding from the South India AIDS Action Programme, the Society has also established a truckers project at the Oddanchatram Check Post, which serves Gandhi Market, famous for its vegetables and butter. Truck drivers now pick up nearly 1,000 condoms each month from the iron pots strategically placed in the area’s petrol stations. In addition, an animator from the Society meets with groups of truck drivers early each evening to talk about STDs, AIDS and condom use.
It is not yet possible to identify people with HIV and AIDS in Palani Taluk (sub-district), but it is only a matter of time before the burden of sick and dying people begins to make its presence felt. Plans are underway to provide home- and community-based counselling, as well as care and support for women with HIV and their children in Oddanchatram.

- **Beginnings of change**

Initially the project encountered great resistance from local political leaders, who thought the Society was encouraging the formation of women’s groups in order to weaken the influence of the political parties. The problem was overcome when the project staff met with local political leaders to explain their plans and seek their co-operation.

Initial reluctance on the part of the animators to talk about specific sexual matters had to be overcome through special training sessions. In some cases, meetings were held with their husbands or parents. The animators also had to withstand taunts from men in the areas where they worked, who named them ‘balloon sellers’ because they regularly distributed condoms. To deal with this problem, the Society worked with local organisations to make the role of the animators more official.

The Society also helps women to overcome their vulnerability to social and economic exploitation by helping them to increase their income. In collaboration with the State government, the Society has distributed 35,000 fruit tree seedlings to women farmers, and has enabled 45 women to be trained as radio, television and computer mechanics. The Society also gave vocational training to 20 women sex workers who wanted to give up the profession. These women now undertake tailoring, manufacture leather goods and make knitware garments.

The members of the women’s groups have recently begun to reach out to others like themselves. They aim to make one another aware of the sexual risks to which they are exposed, have their STDs treated, and persuade their husbands and other sexual partners to use condoms. The Society’s goal is for the 50 women’s groups to be registered as societies in their own right, which will qualify them for government funding. Each member currently contributes 10 rupees every month to her group. If a group collects 15,000 rupees, the State Government will provide a matching grant. This will enable the members to begin small income generation activities.

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**NOTES**

1 The two NGOs with whom I did this research were the Child Workers in Nepal and the Child Welfare Society.
Participatory livelihood monitoring in Southern Sudan

Aidan Timlin

**Introduction**

A common problem among relief agencies working in regions of chronic conflict is the lack of reliable and up-to-date information on the socio-economic situation of communities and how this has been affected by war. The erosion of local civil service structures that normally collect and provide such baseline data means that agencies are frequently dependent on pre-war records or isolated studies. To supplement this they often need to conduct their own periodic surveys or devise more informal methods for gathering information.

Oxfam faced such a challenge in Southern Sudan after setting up an operational relief and rehabilitation programme in 1993 in response to conflict-triggered displacement in Eastern Bahr-el Ghazal. The programme was designed to rehabilitate basic services (primary health care, veterinary services, water and relief) to a population of predominantly semi-pastoralist Dinka people.

**The livelihood monitoring system**

To help fill the information gap, Oxfam developed a method for monitoring the livelihoods of the local Dinka people early in 1995. Using local monitors to collect information on a range of indicators, the Oxfam team hoped to understand the livelihood patterns of the Dinka communities and how they adapted to changing circumstances. Monitors were trained to provide fortnightly reports on rainfall, crops, livestock and community welfare, using simple PRA techniques to gather information from a variety of sources including contact farmers, key informants and direct observation.

This Livelihood Monitoring System, as it became known, set out to obtain general baseline data which would serve the whole programme as well as inform emergency responses. It has attempted to do this by encouraging local people to explore and analyse their own situation, as monitors or informants, using participatory methods as an alternative to the more extractive methods of rapid assessment by outsiders.

**Livelihood** is defined as the means of living people employ, that is, the activities they engage in to secure access to food, water, health, clothing, shelter and security.

**Livelihood monitoring**

They system provides an understanding of the livelihood systems of communities, in particular how they seek to meet basic needs and adapt to changing circumstances. It also explores which traditional responses to livelihood threats are intact and where they are under stress.

The system seeks to tap local knowledge by using local people and PRA techniques. It attempts to gain an insight into the complexity of livelihoods by incorporating classifications and distinctions employed by local people to describe qualitative differences between themselves.

**Emergency early warning and assessment**

The system also provides timely indication of any threats (actual or potential) to people’s lives and livelihoods. Monitors report any emergency event or potential emergency - sudden or
cumulative - within or outside their monitoring areas. This includes: acute food or water shortages, disease epidemics (animal or human), displacement, looting (of cattle or property) or medical emergencies due to insecurity, and natural disasters (bush fires, flooding).

Using a simple checklist, monitors identify the nature and scale of emergencies as well as make a preliminary assessment of the capacities and needs of those affected. Checklists encourage simplicity, speed, and accuracy in assessment and focus monitors to identify the worst affected groups and areas while examining their needs in the context of normal livelihoods.

- **How the system was developed**

Initially, six local monitors (all men with educational backgrounds and work experience in agriculture or health) were recruited with the help of the local administration. A series of training sessions were held in the local area lasting from 3 to 6 days. Short follow-up seminars were held to check understanding, review progress and sharpen up techniques. Training included:

- **Methods of collecting qualitative information** using participatory research methods such as ranking, mapping and semi-structured interviews.

- **Methods of collecting quantitative information:** using rain gauges, market visits, recording price and sales information, calculating averages.

- **Interviewing techniques:** dealing with bias, objectivity and subjectivity, dealing with expectations, demonstration interviews, role-play interviews.

- **Report writing, checking, supervision duties.**

- **An introduction to emergency assessment using an assessment checklist.**

Monitors are deployed at two sites, each containing three monitoring areas. Each area covers a number of villages within reasonable cycling distance of the monitor’s home. One monitor in each site acts as a focal point for information. He has responsibility for supervising the other two and for coordinating the submission of reports.

Each monitor produces a fortnightly situational report which is examined and discussed in detail with an Oxfam project officer. The officer compiles a monthly report for each site summarising significant trends in indicators, highlighting areas of special interest and recommending possible courses of follow up or actions for the Oxfam programme. The findings are presented to the local district relief committee, made up of local and international NGOs, the civil administration and local chiefs. This forum is intended as a tool for discussion among those seeking to understand better the areas in which they work. Through monthly presentations of findings at committee meetings, coordination of any planned action can be facilitated.

- **Key Indicators**

The indicators chosen for monitoring cover the main sectors of the local economy, including: crop production, livestock, wild foods, resource management (water, grazing) and access to veterinary and health services. Indicators of social and cultural practices are also monitored.

These indicators help to provide a way of comparing the situations of different groups and areas and assessing changes in these over time. They were identified through consultation with community informants (women, chiefs, farmers, agriculturalists, health workers), selected with the help of local NGOs and the local administration, and through group discussions and ranking exercises (eg. of responses to food shortage, human and livestock diseases, means of exchange) with different socio-economic groups (widows, displaced, cattle owners, non-cattle owners).

The information collected is summarised in four report forms: rainfall, crop situation, livestock situation, community welfare (see Table 1). Rainfall is measured daily in the wet season using simple rain gauges installed in selected stations.

For each indicator a qualitative or quantitative entry is made on each form for each area, summarising findings from information.
collected over the fortnight. Many of the indicators follow qualitative distinctions made in local Dinka terms (e.g. grazing availability, cattle movements). The sources of information used are noted along with explanatory or anecdotal remarks for each indicator.

**Table 1. Indicators for livelihood monitoring**

<table>
<thead>
<tr>
<th>Crop situation</th>
<th>Livestock situation</th>
<th>Community welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop development</td>
<td>Grazing availability</td>
<td>Water availability (for domestic use)</td>
</tr>
<tr>
<td>Crop damage</td>
<td>Water availability (for animal use)</td>
<td>Household food availability</td>
</tr>
<tr>
<td>Crop prices</td>
<td>Health status of &quot;contact herd&quot;</td>
<td>Foods consumed</td>
</tr>
<tr>
<td>Crop sales (selling/buying areas)</td>
<td>Cattle deaths</td>
<td>Responses to food shortage (e.g. rationing, cash/food loans, famine foods, livestock sales)</td>
</tr>
<tr>
<td>Means of exchange (cash, cattle, smallstock, fish)</td>
<td>Animal disease outbreaks</td>
<td>Market commodity prices</td>
</tr>
<tr>
<td></td>
<td>Auction prices</td>
<td>Disease outbreaks (human)</td>
</tr>
<tr>
<td></td>
<td>Livestock sales</td>
<td>Migration (scale, composition, direction, reason)</td>
</tr>
<tr>
<td></td>
<td>Livestock:grain barter rates</td>
<td>Cultural indicators (number of dances, marriages, funerals)</td>
</tr>
<tr>
<td></td>
<td>Milk yields</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cattle slaughters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cattle movements (scale, direction, purpose)</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
**Sources of information and PRA methods used**

The Livelihood Monitoring System uses four key sources of information:

- **Direct observation of homesteads, crops, granaries, cattle, and people’s practices.** Key sites in the area are visited on a regular basis eg. markets, livestock auctions, health clinics, water points. Observations are recorded in note-books on a daily basis and anything that appears unusual noted and reported.

- **Contact farmers** - to help gain an insight into the condition of crops, livestock and people in as manageable an area as possible, five farmers from five different villages are selected by each monitor. These ‘contact farmers’ become the focal points for gathering information about the area as a whole. The farmers chosen represent the major socio-economic groups in each area, including women, cattle owners, farmers with no livestock, fisherfolk, and the displaced. Farmers should also be able to demonstrate enthusiasm and reliability and be contactable on a regular basis.

  Monitors visit each contact farmer at least once per fortnight. During each visit the monitor conducts a semi-structured interview, using the forms as a checklist, to compile information on key indicators.

- **Herd tracking** - given the importance of livestock as the primary assets of the Dinka economy, monitors keep a close tab on their movements, economic value and condition. This is achieved through a ‘contact herd’ belonging to a cattle owning contact farmer. Each monitor tracks the movements of one herd by holding regular interviews with the owner to discuss the composition, health condition, size and location of his herd (and other herds in the area). Periodic observation of the herd is made whenever possible to verify the information being supplied by the owner.

  The indicator, ‘Health status of contact herd’, for example, is assessed with the owner using proportional piling to identify the proportion of his herd that correspond to local classifications commonly used to describe animal health. Any change in proportion observed is used as a point for discussion and compared with other herds in the area. Recommendations are made for follow up by the local veterinary team. Regular contact with local Community Animal Health Workers helps to verify any suspected disease outbreaks.

- **Key informants from the community** are consulted to provide more in-depth knowledge of a particular group of people (eg. the displaced), or a topic of interest (eg. changes in livestock prices, cattle movements, crop prices, wild foods). Informants may include chiefs, representatives of the displaced, civil administrators, church leaders, elders, women, fishermen, auction clerks, and traders.

  Monitors also meet regularly with local NGO agricultural, veterinary and health clinic staff in their areas for specialist advice on key indicators (eg. diagnosing crop damage, and animal and human disease outbreaks) as well as to help in cross-checking information and to elicit general comments on other indicators, eg. water and grazing availability.

  Quantitative information (crop prices, auction prices, livestock sales, barter rates, market commodity prices) is collected through direct contact on a fortnightly basis with specific key informants who are able to supply such data. Using records kept by auction clerks, for example, monitors are able to work out fortnightly average prices, price ranges and the volume of sales for different animal types.

**Successes so far**

1. The monitoring system has become an essential part of the Oxfam programme in Eastern-Bahr el Ghazal. It has built up Oxfam’s knowledge of the area and has begun to feed into programme planning: information from livelihood monitoring feeds into the health, livestock and water programmes and each of these feeds into
the monitoring. Monitoring reports, for example, highlight areas of disease outbreaks to direct health inputs while Community Health Workers provide monitors with data on clinic attendance and reported diseases. By taking a holistic look at the community, the system enables a more integrated approach to planning to be developed.

2. The system provides Oxfam and other agencies with a more reliable base of information with which to identify and address food security issues and respond to food needs if necessary. Monitors have proved useful in complementing and updating the snapshot harvest forecasts and post-harvest assessments conducted by visiting teams. Their particular insight into different community groups has been essential for assessing food prospects and diagnosing the severity of shortages.

3. Local monitors have proved useful in being rapidly deployable to potential emergency areas (eg. to investigate rumours of migration, disease outbreaks or food shortages). In this way information gathering is flexible and responsive to need.

4. The Livelihood Monitoring System has been well received by the local community. It has been a useful tool in aiding discussion and collaboration between Oxfam, local NGOs, the local administration and traditional structures (chiefs). Community members have responded well to the opportunity to analyse their own situation in their own time, and particularly to express qualitative distinctions between households and groups that capture their own perceptions of ‘difference’. In this way, PRA methods enhance the likelihood that plans for external assistance are more reliably informed by the real problems and needs of different members of the community.

5. It is the only system of information gathering in Southern Sudan that has trained local monitors. Training local people to collect information (as opposed to relying on whistle-stop ‘assessment’ visits by relief agency teams) means that ongoing collection is possible and that local capacity can be enhanced and sustained.

- **Problems encountered and lessons learned**

The system began with an exhaustive list of indicators, some of these indicators initially chosen have since been stopped, as they proved more difficult to collect using PRA methods than originally envisaged (eg. child nutrition). New ones have been added and others modified to incorporate new insights into livelihood systems (eg. vegetable production, market commodity prices, livestock auction price ranges). This process of refinement and trimming is likely to continue as the system is developed. Indicators also need to be more finely tuned to the livelihood dynamics of particular groups within the community (eg. fisherfolk).

The quality of reporting among monitors was initially poor. This was inevitable, given that most were exercising their written English skills for the first time since the current war began. The concept and purpose of monitoring was well understood early on, but the importance of providing accurate, objective and detailed information over a discrete time period still requires repeated emphasis.

Collection of accurate qualitative information requires highly developed interviewing skills. Monitors need to develop these more fully, through training and close supervision. A key problem in interviewing has been the difficulty of trying to avoid raising expectations among respondents. This is accentuated when conducting preliminary emergency assessments, given people’s raised expectation that relief items may be released and the tendency to concentrate on what relief items are needed rather than on what local response capacities remain intact.

The system relies on careful interpretation and analysis of information. At present, capacity and responsibility for this still rests with Oxfam. ‘Ownership’ of information therefore remains outside the community.

A more thorough understanding of local conditions is required before comprehensive
interpretation of monitoring data is made. Particularly needed is a clearer analysis of the position of women, fishing activities, access to livestock, kinship networks and systems of reciprocity.

At present, the `household’ remains a central unit of analysis. Information on households is therefore affected by the varying perceptions among monitors and respondents. A much clearer definition of household are needed as this is complicated by existence of polygamy and exogamy, extensive kinship networks, and often complex patterns of seasonal migration.

Analysis of the position of women is made especially difficult by the fact that, at present, all monitors are men. The system needs to facilitate the fuller participation of women as both monitors and informants. This is made difficult by the lack of formally educated women in the area.

• Conclusion

While the structure of the Livelihood Monitoring System has been established and useful reports produced, the system is still in its infancy. Further recruitment and training of monitors is required to expand PRA skills and improve the quality and coverage of reporting.

Its flexibility is its vital ingredient. It can be adapted on the basis of experience and the characteristics of different areas and different community groups. Indicators may be phased out if they prove less sensitive than originally thought. New indicators may be introduced if they strengthen the reliability and predictability of the system.

But the system has some way to go before it can provide accurate early-warning of emergencies. With the development of its analytical framework and increased geographical coverage, coupled with a degree of stability, it should be capable of responding to this challenge.

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PRA in international agricultural research:  
first experiences of IIMI-Pakistan

Paul Gosselink and Anouk Hoeberichts

Introduction

We would like to share our experiences of using PRA in an international agricultural research organization, the International Irrigation Management Institute (IIMI). IIMI is a member of the Consultative Group for International Agricultural Research (CGIAR), with its headquarters in Colombo, Sri Lanka. It has a broad mandate which includes ‘the improvement of the management and performance of water resource systems and irrigated agriculture’. One of IIMI’s research programs is Performance Assessment of water resources systems. It was within this context that we used PRA.

Policy makers, system managers and water users have contrasting interests in irrigation performance. We wanted to investigate the perspectives of all the stakeholders within an irrigation system and explore the implications for irrigation systems management. An important component is the indicators of irrigation performance derived by water users and how these compare with those of policy makers and irrigation system managers.

The participatory research was conducted in Pakistan (South Punjab), one of IIMI’s National Programs. PRA was considered the most suitable methodology because it provides scope and opportunities for water users to express their perceptions. This approach is different from IIMI-Pakistan’s conventional approach to data collection (e.g. primary data collection using questionnaires) because it involves water users as partners rather than sources of information.

The need for a different approach was illustrated recently by water users living in a watercourse where IIMI had been collecting data for three years. The villagers revolted against IIMI’s presence and would not allow the staff to visit the village or ask any more questions. Villagers suspected IIMI of reducing the water level in the distributary to test the extent to which water users were able to survive. It became clear that the water users could no longer be neglected in the research process.

Performance Indicators: the role of water users

We adapted and applied PRA as a research method to explore water users’ perspectives on irrigation performance. This meant that water users were involved as:

• providers of relevant knowledge and information: we were there to learn from their experience;

• analysts of their problems related to irrigated agriculture: water users identified and ranked the main problems related to irrigated agriculture and, with help of cards and flow charts, they visualized causes, effects and possible solutions;

• actors influencing the research agenda during the research process: issues which they identified as important were taken up to explore further (e.g. the influence of landlords and politicians on unequal water distribution);
• participants in the identification of performance indicators:
  through group meetings the information received by different water users was cross-checked to build up an agreed framework of indicators; and

• experts of their own situation in making decision and taking action:
  based on several PRA tools (map, trend lines, cropping calendars and water need periods, ranking, chapati diagrams), we learned from water users how they used indicators to cope with poor irrigation performance.

This participatory study elicited broad and detailed perspectives of water users, which are not limited to conventional technical standards (Figure 1). This is a clear benefit of the participatory approach.

We encountered some difficulties in applying PRA as a research methodology. First, this approach was novel for IIMI so the villagers gained the impression that something was to be offered. One water user remarked: this is the first time that I am approached in such a way. You should be up to something! He knew there was nothing to expect from officials who asked some questions and left again.

Second, when farmers suggested possible improvements, there was a gap between their proposed action and the ability of IIMI to respond. This stemmed primarily from the failure of IIMI to develop functioning partnerships with local governments, research institutes or extension agencies to implement the changes (the action to build on the participatory research).

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Local response to compensate for poor performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving a sufficient amount of water (adequacy)</td>
<td>Adjust irrigation practices, installation and use of tubewell water, engage in water markets, illegal practices, exert social pressure</td>
</tr>
<tr>
<td>Receiving water at the right time (timeliness)</td>
<td>Adjust irrigation practices, installation and use of tubewell water, engage in water markets</td>
</tr>
<tr>
<td>Mud, sediments, minerals and salt contents (quality)</td>
<td>Conjunctive use of canal and tubewell water</td>
</tr>
<tr>
<td>Difficulty in irrigating with a certain stream size and flow velocity (tractability)</td>
<td>Adjust irrigation practices, installation and use of tubewell water, engage in water markets</td>
</tr>
<tr>
<td>Uncertainty about how much, when and for how long canal water will flow (predictability)</td>
<td>Social relationships and networks</td>
</tr>
<tr>
<td>Water distribution between distributaries, water courses and within a watercourse (equity)</td>
<td>Social pressure</td>
</tr>
<tr>
<td>Use and obtain tubewell water, cost/expenses related to tubewell water (hassle)</td>
<td>Installation and use of tubewell water</td>
</tr>
</tbody>
</table>
**PRA in large scale irrigation systems**

One watercourse was chosen for a more in-depth study of how water users apply indicators to compensate for poor performance. Following an informal group meeting, the villagers agreed to arrange individual meetings with the team. In a final group meeting, the participants shared and cross-checked issues raised in individual meetings.

This raised questions about the replicability and representativeness of the information gained. For example, how could we scale-up our watercourse-level insights and have an impact on the management of the irrigation system? What was the reach of PRA? Could findings from selected watercourses be generalized for the entire secondary channel?

The PRA study would have become too time consuming if the same procedure was repeated for other watercourses to identify overlaps and differences between water users. An option was for the team to interview fewer individuals from a larger number of watercourses. We felt this would fail to provide the opportunity for in-depth discussion and feedback with the various water users.

However, changes at one point in the irrigation system may affect all watercourses downstream, insight in the water users’ perspectives of other watercourses along the distributary seemed necessary. The idea arose to design a more structured survey based on the PRA study.

A combination of PRA with more structured techniques could provide a solution in large-scale irrigation systems. However, the potential loss of information should be recognized. Our experiences suggest that in larger surveys, there would be less time available for each water user and opportunities for feedback and returning to the communities would be reduced.

**Figure 1. Development of a flow chart, Punjab, Pakistan**

![Figure 1. Development of a flow chart, Punjab, Pakistan](image-url)
• **PRA in a CGIAR institute**

This research highlighted a problem for an organisation like IIMI in undertaking PRA. While IIMI can use PRA to identify possible local management strategies and action to improve irrigation services, it cannot implement them. IIMI makes a distinction between its ‘clients’ (policy makers, managers and researchers) and ‘beneficiaries’ (water users whose livelihoods depend on irrigated agriculture). National agencies, not IIMI, provide irrigation services to the beneficiaries.

The role of IIMI is to collaborate with local policy-making organizations, governmental irrigation management organizations, associations of water users and national research institutes. These organizations are normally involved in implementing proposed changes in the management of the system. However, local governmental organizations are not always involved in the collection of information, nor were they involved in this study on water users’ perspectives. Yet, they are supposed to consider changes proposed by IIMI.

Proposed changes which affect the whole distributary should be taken to a higher level, including all other stakeholders groups. This can help create a rich picture of the constraints and opportunities of innovations in an irrigation system. Another participatory methodology was used in this study to do this: Rapid Appraisal of Agricultural Knowledge Systems (RAAKS). This provided opportunities to involve and bring together all the actors who have relevant knowledge and information to consider proposed changes.

A first step of RAAKS was to identify these actors (e.g. irrigation department, police department, water users, member of national assembly). Based on interviews with people representing these actors, an analysis was made of the gaps and overlaps concerning their objectives, interests, tasks, linkages, communication and coordination in relation to irrigation performance. There appeared to be very few interactions and shared interests relating to irrigation performance. The attitude seemed to be: as long as you are not aware of another one’s problems, you don’t have to bother. However, all the actors recognised that progress could only be achieved by working together.

• **Conclusions**

Water users can clearly analyze their own situation, including the detailing of changes they would like both to see and can make at field and watercourse level.

Current rethinking of the role of the CGIAR centres suggests a possible change in mandate which would make it possible for organizations, such as IIMI, to commit themselves to action strategies identified by stakeholders. In the mean time, IIMI should try to involve the irrigation agencies as much as possible in the application of PRA with water users.

IIMI recognizes the relevance of incorporating participatory research methodologies, and PRA and RAAKS are currently included in several research programmes. It is hoped that participatory research methodologies will eventually become institutionalized at IIMI.

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**NOTES**

Responsibility for the contents of this article rests with the authors. The views expressed do not necessarily reflect those of the reviewers, the International Irrigation Management Institute or any other organisation.

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Involving farmers in the research planning process: smallholder attitudes to herbicide use

Daniel Alembi, Stella Nabwile and David Mburu

Introduction

Weed science research programmes at the Kenya Agricultural Research Institute (KARI) have traditionally focused on station based trials. Contact between scientists and farmers has been limited, and where it has taken place, it has generally been with larger, more commercially-minded farmers.

There has been considerable debate over the role of herbicides within smallholder farming systems in Kenya and whether or not it is an appropriate use of limited resources for KARI scientists to conduct further research in this area. This report documents the first experience of a group of KARI scientists in using group interview techniques to incorporate the views of farmers into the research planning process.

To gain experience of conducting the survey, a trip was made to Embu research station to meet with Dryland Adaptive Research and Extension Project (DAREP) research officers who have experience of conducting weed surveys. A field day was later organised by DAREP in which we compared demonstrations of zero tillage (herbicide use) and hand weeding.

These showed that in the Embu area there are considerable advantages to using herbicides compared to handweeding. First, soil erosion is reduced with herbicide use. Second, the costs involved in herbicide application are less than those of handweeding. Third, the labour saved during herbicide application can be used to perform other farming activities.

Using this background information on herbicide use, an initial survey was undertaken in Kinangop south division, Nyandarua district, and Kibirigwi division, Kirinyaga district. These two areas were chosen because the small scale farmers grow many vegetables for commercial purposes and can afford to buy herbicides.

The two study areas have different marketing systems, watering systems and infrastructures. The vegetable crops grown in these two areas are also different. The farmers in Kibirigwi are organised under the Kibirigwi Farmers’ Cooperative (KIFCO) whereas the Kinangop south farmers are not organised under any scheme. Kibirigwi is irrigated while Kinangop is rainfed. The roads in Kibirigwi are also better than the ones in Kinangop. The idea was to highlight the problems encountered by the farmers in the two different areas. Specifically, the project objective was to obtain more information on farmers’ attitudes to herbicide use and explore the reasons why they do or do not use herbicides.

Methodology

The study started with a preliminary survey in Kinangop and later Kibirigwi where individual farmers, both male and female, were chosen at random and interviewed. Twenty farmers were interviewed in Kibirigwi and 28 in Kinangop. After the preliminary survey, group discussions were held on farmers’ fields. The Kinangop group was composed of both freehold and contract farmers (five men and two women). Both discussions, which took about two hours, were carried out in the presence of an extension officer and the participating farmers where chosen by the same extension officer (see below). The study was undertaken between June and November 1994.
• **Results**

The survey in Kibirigwi Division and Kinangop Division revealed that the main vegetables grown were Irish potatoes, sweet potato, French beans, tomato, cabbage, capsicum, egg plants, carrots, leeks and navy beans (a new crop in the area).

Major findings from both group and individual interviews were that: first, pesticides are not widely used by this group of farmers and second, use of herbicides is very limited due to lack of both information and finance. In Kibirigwi no farmer used herbicides in vegetable production whereas in Kinangop herbicides were only used for carrots.

Two major issues which identified through this research:

i) **Market related issues.** Brokers are the main outlet for the farmers to sell their produce. The farmer has no control on the price of his produce. The broker fixes the price yet farmers still prefer to sell their produce to the broker since he pays promptly. Unfortunately, farmers do not know the price they will receive for their produce before harvest. Small farmers are even more vulnerable as they cannot delay selling their produce. This situation forces them to take the first offer from the broker. Farmers tend not to sell their produce to co-operatives because it can take up to six months for them to make payment.

Due to the uncertainty in the price for produce, these farmers are not prepared to invest in inputs. Poor roads, especially in Kinangop, make access to the farms difficult and in wet weather brokers stay away from these areas leading to loss of income due to produce wastage. There are considerable variations in prices between peak supply and scarcity periods. Fore example, during peak supply one head of cabbage costs less than one shilling whereas in scarcity periods the same head costs 5-10 shillings. Generally prices on farm can be as low as 5 per cent of market price.

ii) **Lack of information** on pesticides and herbicides in particular was a major problem for all the farmers interviewed. Information was not available on treatments, application rates, safe use and handling, storage and disposal. Farmers did not know of the different kinds of herbicides available for use in vegetable production. They also did not know how to spray or dilute herbicides. Some farmers kept pesticides in the same store as food stuffs and others smoke as they sprayed. Most farmers did not have appropriate protective gear and, even if it were available, it may not be affordable to most farmers.

Other observations were:

- Extension staff are rarely seen and do not give advice.
- Chemical companies sometimes give advice and are generally the ‘best’ source of information, although with a bias to their products.
- Retailers often sell without giving advice.
- Products are often adulterated. Farmers gave numerous reports of products not being effective.
- Products sometimes are used without knowing what the application rate should be.
- Products are often repackaged and may have no instructions (e.g. in a beer bottle).
- Weeding is expensive but can usually be limited to two times in vegetable crops. Family labour is the main source although most farmers have to hire labour at peak times.

In Kinangop 75 per cent of the farmers interviewed admitted that weeds were their biggest problem in the production process. Some weeds are particularly difficult to dig up and farmers said they would like to know if herbicides are available to control these: *Amaranthus* spp., *Geranium* spp., *Spergular arvensis* and *Polynum aviculare*.

• **Observations on methodology**

We suggest that farmers should be selected at random or an incorrect picture of the real issues may be obtained. In the Kibirigwi group interview, the Extension Officer did not choose the farmers at random. The KIFCO Chairman wanted to be the spokesman of the group, yet he was giving misleading information, and presented the official view of the co-operative rather than the actual situation. He also insisted on speaking in English which excluded the
other farmers from the discussion. This was tactfully avoided by the interviewer.

The presence of the extension officer in front of the group also influenced the willingness of farmers to freely express their opinions. However the female farmer felt intimidated as she was the only woman. This suggests that misleading information may be obtained from participants who do not feel free to express their honest opinions. In the Kinangop group discussion, the extension officer took a back seat and did not talk throughout the discussion. This left the farmers free to discuss issues freely.

To avoid bias it is better to inform the extension officer of the purpose of the visit on the day of the interview. If informed earlier, as with Kibirigwi, the farmers may be selected and encouraged to present an official view.

The setting for group discussions is an important factor to consider. In both cases the discussions were held on or near the farmers’ fields so that the surroundings were familiar and researchers could observe the situation at first hand. The group in Kinangop listed various other problems apart from weeds including the poor marketing facilities and roads.

It is important to establish a good relationship with the group before and during the discussion. The interviewers sat with the farmers and the local language was used to make the farmers more relaxed.

In the discussions (both individual and group) women tended to give brief answers to questions asked. By contrast, the men would answer the questions and talk more in the discussions. This hinders the gathering of farming information because women spend more time on the farm than men and are more aware of the problems affecting farming. Women feel that their husbands should be the spokesperson. For example, a female farmer was being interviewed in Kinangop but on seeing her husband, she just stopped the discussions and handed the interviewers over to her husband.

An important feature of future research will be to encourage greater participation of women in group discussions. Initial efforts will focus on holding separate group discussions for men and women farmers. Care will also be taken to ensure that facilitators have the confidence of group members and are not themselves a reason for the low level of participation by women farmers. Hopefully, it will then be possible to work towards a situation where both men and women can participate in discussions on an equal basis.

**Recommendations**

The study indicated that before smallholder farmers can be expected to adopt herbicides on a wider scale several issues need to be addressed. These include:

i) **Information**

- strengthening of links with extension.
- preparation of appropriate technical bulletins on pesticide use. These bulletins will include recommended treatments for various crops, application rates and appropriate measures for safe use.
- on-farm demonstrations.

ii) **Adulteration**

- authorities will be encouraged to take action against offenders.
- more control is need on seed quality.

iii) **Marketing**

- try to encourage farmers to form marketing groups through negotiating with brokers and marketing directly.

**Conclusion**

The interviews showed the farmers’ lack of knowledge in herbicide use. It also indicated that one of the limiting factors is the uncertainty created by the present marketing structure. Until some degree of price security can be obtained, it is unlikely that farmers will be in a position to take advantage of the possible benefits of herbicide use.

However, there is a clear need for greater effort in making information on herbicide use more widely available and accessible to smallholder farmers. There is also a need to test research
recommendations developed on station at farm level, involving the farmers themselves as much as possible in this process. Once appropriate regimes are available these could then be promote through demonstration trials.

Working closely with farmers may uncover specific weed problems which present new challenges for research. These participatory surveys have started us along the path of learning from farmers.

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Quality circles and institutional culture: a proposal

Anand Kumar

Organisational environment and culture

Participatory Rural Appraisal (PRA) is one of a set of methodologies that emphasise the participation of resource poor people in developmental processes. PRA has gone a long way in changing conventional development approaches towards more participative ones. It offers a people-oriented approach to sustainable development that includes a well-defined and expanding set of methods, for use in achieving its objectives. These have altered the way most development practitioners view the development process, and is reflected in the increasing popularity of PRA and people-centred development processes.

One deficiency with PRA is that it is somewhat weak in its institutional aspects. See, for example, the section on ‘Institutional aspects’ in ‘Sharing our concerns and looking to the future’ in PLA Notes 22. This paper sets out a proposed methodology for improving the ability of institutions to employ participatory approaches.

Guidelines for institutional management and style

It is now clear that PRA and associated participatory methodologies will not take root unless the organisation culture is supportive. Two principles are important:

(i) There should be a transition from management styles based on hierarchy, inhibited communications, command and obedience relationships to more organic styles that encourage lateral communication, collegial authority and flexible roles and procedures.

(ii) Institutions should create conditions that encourage employees to be participatory in their work with each other, and not just during ‘field visits’.

These guidelines are good for small organisations and those which are starting afresh. However, most development work in countries of the South is undertaken by the government or donor agencies. In these organisations there is less flexibility to build an institutional culture that would foster PRA. The organisations are massive and have inherited and imbibed their culture from the prevailing structure of government organisations.

Thus, the spirit of PRA invariably may get defeated in a target-oriented, hierarchical, top-down culture whose management style is based on command and obedience relationships, following a blueprint. This impedes efforts to implement PRA through government agencies, unless handled by well-trained, sensitive and dynamic individuals.

Quality circles

The answer to this, in my view, may lie in developing the organisation using PRA skills amongst implementing agency staff. Organisation development conjures up a corporate image and a wide variety of approaches are currently in fashion. However, I envisage a fairly simple, time-tested and incremental approach to bring about a more participatory, experimental and flexible functioning of organisations.
The concept of quality circles is fairly simple and needs no special adaption to developmental organisations. Quality circles are generally associated with industrial product quality, but this is too narrow a concept of quality. Quality is everything an organisation does in the eyes of its customers or clients, which encourages them to regard the organisation as the best in that field. Simply put, quality is a measure of achievement of customer satisfaction.

‘A quality circle is a small group between three and twelve people who do similar work, voluntarily meeting together regularly for about an hour per week in paid time, who are trained to identify, analyse and solve some of the problems in their work, presenting solutions to management, and where possible, implementing the solutions themselves’

Quality Circles Handbook, David A. Hutchins

- Benefits

The concept of quality circles is based on the simple recognition of the fact that, given the right environment, people do want to work. They want to improve both themselves and their organisation and, provided they are compensated fairly, gain considerable satisfaction from recognition of their talents and creativity.

Quality circles use participatory methods to involve employees in the success of the organisation through the development of self-control in ‘small group’ type activities. Although there are any number of small group activities, such as project group, task force, action groups, etc., quality circles are unique in philosophy and content. They have a long-term view, are incremental and most importantly, explicitly aim to develop frontline staff. As the ethics and philosophy of quality circles takes root and develops in an organisation, the organisational culture desired by PRA takes shape.

Quality circles come under many names and have been effectively used across the world in environments ranging from heavy manufacturing to consumer goods and services like telecommunications and banking. They have cut costs, improved processes and increased customer satisfaction. More importantly, they have contributed significantly to employee development. Employees have become more involved with and see the value of their work, become aware that their work gets recognition and solve their own problems. It has led to more participatory and trusting organisational environments where the recommendations and voice of frontline staff is valued.

The kind of organisational cultures which have resulted from a committed and sensitive use of the quality circle concept are similar to those desired by PRA. The best feature of quality circles is that they have succeeded in changing organisational cultures which were initially very similar to those which exist in typical government agencies - hierarchical, rule-bound, top-down and non-experimental.

The apparent simplicity of the concept is both a strength and weakness. Properly introduced, and given the right environment, quality circles represent an opportunity to create a new kind of work environment, based on participation and operational flexibility rather than rule-bound constraints. They work gradually, taking the whole organisation with them rather than through a revolutionary upheaval. The danger is that if the ideas do not have the support of top management, are introduced in a perfunctory manner and do not receive the necessary support, they fail and add to the cynicism of employees. This reduces the concept to just another fashion.

- Conclusions

My suggestion is that quality circles are easily introduced, are simple, and after taking root they can help to create a participatory management culture in organisations.

They have considerable potential for altering organisational cultures from top-down, hierarchical, role-bound ones to more participatory, open and experimental ones in development agencies. This could complement the existing PRA approaches towards a comprehensive implementation of the PRA philosophy. I wanted to share my ideas with readers and hope this proposal will challenge people to action. More importantly, I hope it can trigger discussion and debate on improving the organisational effectiveness of PRA.
• **Anand Kumar,** 2/142 Vikasnagar, Kursi Road, Lucknow, Uttar Pradesh 226 020, India.
Process observation in PRA: guidelines and reflections

N. Narayanasamy and R. Ramesh

Expansion of PRA

Participatory rural appraisal (PRA) is increasingly used. In the process of contributing to growth and development, PRA itself is undergoing significant evolution as it is put to use by a multitude of agencies from villagers to World Bank officials.

Significance of process observation

The growth and spread of PRA has precipitated much debate. Recently, concern has centred on the way in which methodologies are employed and the quality of PRA. One response to this, which is the focus of this article, is process observation.

Process observation is a method of documenting, reflecting on and evaluating the implementation of PRA. It is a critical component in PRA exercises for it:

- provides immediate feedback;
- maintains the quality of PRA work;
- enables the practitioners to adhere to the principles and values of PRA;
- builds confidence among the members of the PRA team;
- helps improve the existing methods and promote methodological innovation; and,
- helps to explore the accuracy, reliability and replicability of the information gathered and shared.

To date, process observation has received little attention. But good practice and principles, such as openness, flexibility, adaptability and improvisation of methods, depend on critical reflection by practitioners. The quality of PRA and its credibility will be improved if the process is observed, reflected upon and learning experiences fed back into practice. It is our experience that a PRA practitioner should never forget that each PRA session is a new learning experience.

Task of the process observer

A process observer is generally asked to observe and note down events, incidents and transactions that occur in the course of gathering and sharing information. Based on this, he or she prepares a report that is shared among the team members during in-house sessions.

But we have often observed that the process observer may fail to grasp what is expected of his or her role. Their reports are often too lengthy with a lot of unnecessary details and very little scope for improving ourselves as PRA practitioners.

Thus, we feel that a process observer should have more explicit objectives on what to observe during a PRA exercise. We present below guidelines and checklists that may be helpful for a process observer.

Guidelines for the process observer

The process observer has to look at the process from three angles, namely: atmosphere-based, team-based and people-based.
could assemble? Is there any place-specific barrier to assembling and discussing?

- What are the seating positions? Who seem to occupy superior places?

### Team-based

- Is there ‘role-reversal’ (such as outsiders acting as learners, or villagers as teachers)?
- Is there any ‘role confusion’ and ‘role change’ among the team members, or do they play their assigned roles correctly and effectively?
- Is there ‘rushing’ or is the learning process gradual and progressive?
- Is there coherence between successive questions, or are they jumbled?
- Does the facilitator or interviewer establish contact with every participant, or does he or she focus on only a few active informants?
- Is there adequate probing and cross-checking of information?
- Are the ‘six helpers’ in PRA (what, when, where, who, why and how) adequately and continuously used?
- Is the information generated triangulated, cross checked and substantiated?
- Is the facilitator sensitive to the needs of the group?
- Is the discussion too lengthy?
- Is ‘shoulder-tapping’ done whenever necessary? (i.e. are team members sensitively reminding each other of the need to take a listening attitude)
- Is there a natural starting and natural withdrawal? Are ‘chance encounters’ (e.g. during a transect) made use of or ignored?
- Does the team share the information with the villagers?
- Is there any language barrier?

### People-based

- What is the mix of participants (are they young, old, men, women, rich, poor or mixed)?
- Which local people appear to be excluded from the process?
- What is the ‘outsider’ to ‘villager’ ratio?
- Do the villagers do, say, show and map with natural involvement and willingness, or with reluctance and because they are asked to?
- Are materials used in the exercises which are locally available?

### Final tips for the process observer

Have the people changed through the process of PRA? This is an important question that is posed to PRA practitioners.

To answer this question, the process observer should be able to identify different stages through which the group passes. He or she should have a ‘third eye and a second hand’ to observe and note the changes in the behaviour of the villagers towards the outsiders in successive visits.

Broadly, we distinguish five stages through which a well-facilitated group pass:

### Rapport

- Is there transparency in the relationships between the village group and the outside team?

### Confidence gaining

- Has the village group gained adequate confidence on the motives and purposes expressed by the outside team?
- Have the outsiders enabled the villagers to gain confidence in themselves - in their own analysis and interpretation of the situation and events?
Self-appreciation

- Has the process of PRA paved the way for a self-appreciation, by the villagers, of their own analysis and interpretation of the situation and events?

Capacity building and empowerment

- Does the process enable capacity building and empowerment, or is it superficial?

Action

- Does the PRA process tend to initiate action or merely enable the outsiders to deliver a fine speech, roll up the information charts drawn by the villagers and quietly leave once and for all?
- Have the outside team raised the expectations and exceeded the scope of the PRA, or have they empowered people to facilitate their own change?

Conclusion

As PRA practitioners, these guidelines should help us to focus on where we have failed to follow the basic philosophy of PRA. A continuous and critical reflection on the process would enable us to handle the PRA methods with ease, confidence and ingenuity and enable us to feed back analysis with practice. This should enhance the quality of PRA.

Process observation is an important component of PRA, yet it is a difficult task. The person who observes the process has an all-absorbing role to play. He or she must be an intense, patient listener and a keen observer of PRA methodologies and principles.

- N. Narayanasamy and R. Ramesh, PRA team, Gandhigram Rural Institute, Gandhigram - 624 302, Tamil Nadu, India.

Introduction

I would like to present a brief account of an irrigation development project undertaken in the Western Gojam, Ethiopia. During this study, I realised some of the problems one could encounter in the practical application of PRA. To this end, I will focus this paper on the timing of the consultation process with potential ‘beneficiaries’ of a development project. Should we be open and tell people about the nature of the study? If so, when should consultation occur? At the beginning, as we have done in this project, or at the end?

Project

The objective of the study was two-fold:

- To undertake a feasibility study for the development of 16000 hectares of land in the Birr and Koga River sub-basins.

- To prepare an overall catchment-wide development plan for the two sub-basins.

The project entails the inundation of vast areas of grazing and cropland to construct reservoirs in two areas: Birr and Koga. It was estimated that up to 2000 hectares of land could be inundated in Koga and twice that much in Birr. As a result of the inundation, there is a need to relocate a large number of families from the proposed reservoir area to the potential irrigated area which is located near by.

The study has taken about two years and was completed recently. It used a multidisciplinary approach drawing on a team of technical and social advisors. One of the exercises was to conduct a socio-economic survey using PRA in combination with a structured questionnaire. The main objective of the survey was to understand the attitudes of the potential beneficiaries towards the proposed irrigation and catchment development.

Focus group discussions, with local people from different Peasant Associations located in the project area, were an important tool to establish dialogue between advisors and local people. The advisors’ role was to discuss the proposed development with local people since it is they who will eventually receive the best or worst end of the deal.

In most of the Peasant Associations, especially in Birr catchment area where prior irrigation experience exists, the discussions were conducted smoothly. Resistance and defiance to the project objectives came from Peasant Associations in Koga, the proposed reservoir area. In this catchment area there is no prior irrigation experience and the resistance to the project was strong. The majority of household refused to listen to or co-operate with the advisors and project staff. Some farmers even tried to intimidate and attacked the project staff. By the time the reservoir area farmers rebelled against the study, the study exercise was in its second phase. This phase required a lot of field work, including soil testing and a topographic survey, but it was not completed because of local resistance.

At this point the project staff divided into two groups. One group felt the study team were right in explaining project objectives to farmers. The other group, mainly composed of technical advisors, were opposed to the frankness. They felt that the study project would be suspended because of the farmers’ reactions.
The study did continue, albeit with some coercion by the local administration. It has now been completed but the social issues continue to be the main challenges for the continuing appraisal, design and implementation periods.

**Reflections**

Confusion emerged and the project was impeded through being open with people from the beginning about the projects’ outputs. The question remains: Should we have refrained from telling the people about the project’s objective until technical field studies, such as the soil survey, had been completed? In this way, we would have avoided popular resistance to our presence. Therein lies the dilemma: the technical people didn’t want openness at the beginning until their part of field study was finalised. By contrast, the social scientists favoured openness at a very early stage of the study to ensure the participation of the people.

My experiences suggest that it is best to have a consensus on the methodologies and way to conduct the study prior to starting. While many of the staff, including both technical and non-technical advisors, believe in the merits of participation, these principles were over-ridden during this study. But I think that if we believe in consultation with local people to ensure project sustainability, then we must have participation. Whether the consultation should be at the beginning or at the end of a study period remains a moot point.

I would like to use PLA Notes as a forum to invite all those interested, especially field level practitioners, to discuss the timing of the consultation process in participatory project development.

- **Million Gebreyes**, P O Box 26746, Addis Ababa, Ethiopia.

**The timing dilemma: a response by Parmesh Shah**

Many large scale development programmes have been designed and implemented without adequate consultation with communities. Most development programmes involve gainers and losers. PRA and other participatory approaches have played an important part in facilitating negotiations between different stakeholders. They have also enabled people to bargain and negotiate with other stakeholders and the government.

If the initial appraisal process indicates loss of income and livelihoods for one group, there is a need for extended dialogue with different groups in the community. There is no short cut approach in such situations other than discussing alternative options with communities. This should include an explanation of the rehabilitation option, enabling people to appraise their alternatives. This requires sensitive and patient facilitation.

Million mentions the timing dilemma. I feel that the problem is not just with the use of PRA. Transparency is a very important aspect of the participatory process. The facilitators and the practitioners should always be up front and frank about the objective of any appraisal process with the communities. Most people in the village community are already disillusioned with outsiders and so do not trust them. By being frank, facilitators and the institutions build better rapport and are able to facilitate negotiations between various stakeholders on complex problems with a reasonable chance of a compromise solution.

In our experience, if external agencies are manipulative, not transparent from the outset and have already decided the objectives without consulting the people (as appears in this case), people see through the game and react negatively (e.g. by beating staff) and sabotage the implementation of such programmes. It is pointless to do complex and costly technical appraisal and planning unless people see the need to pursue this option and it is socially feasible to implement a programme. In summary, I suggest ‘be up front with the communities about the objectives and purpose of the appraisal: allow them the space to evaluate appraise and negotiate different options’.

- **Parmesh Shah**, Institute of Development Studies, University of Sussex, Falmer, Brighton BN1 9RE, United Kingdom.
Feedback is a new forum for you to comment on any of the articles published in PLA Notes. Both letters and articles are welcome for this section. We hope to increase discussion and the sharing of ideas among PLA Notes readers through these pages. Please send us your views and articles.
Coloured papers
by Gerhard Baum

I recently began using small, coloured pieces of paper as tools to enable communities to present complex issues in an easy-to-understand, visual format. This can prepare a common ground of understanding and stimulate discussion within local communities. Different colours are used to represent different elements of the environment: for example, yellow for climate, blue for water, green for vegetation. A different coloured sheet of paper is introduced to explore the social and ecological impacts of an intervention, such as agroforestry.

Examples of use
Management of natural resources: coloured papers triggered an intensive debate among populations bordering the Taï forest in the Ivory Coast. This led to the ‘Green Barrier’ against desertification, an initiative to protect the forest for the local communities. This approach was also used to promote discussion with village headmen on methods of improving the ability of the community to manage its natural resources.

Advantages
Coloured papers are cheap, easy to carry and simple to use. (Hint: Carry drawing pins to fix papers to a variety of surfaces!)

Learning in the field
by Agnes Mullaa

Agnes Mullaa is a secretary at the headquarters of the Association for Better Land Husbandry. She had been involved with editing a number of PRA reports but felt she could do a better job if she investigated PRA in the field. This is part of her personal account of her first experiences with men and women farmers.

Following a preliminary visit the previous day, my colleagues and I visited members of Busala Self Help Group, Namusala village, Kenya. The occasion? A PRA session on participatory mapping and modelling. What struck me was the excitement and concentration among the participants. I was more than eager to see the session started as I could not imagine how the villagers would come up with a map. This was to become the height of my workshop learning. I couldn't believe it - but seeing is believing!

I feel that I am now better placed to edit PRA reports because I understand how local people can contribute to the development process. In our participatory approach we learned from the farmers. Our role is to try and help people identify and solve their own problems. Participatory mapping showed me how key problems can be identified. PRA opened my eyes to seeing the potential for local people to manage their own development.

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A brief guide to adult learning

Introduction

This new section provides training materials for participatory learning. We plan to focus on a different topic for each issue. This article describes how adults learn and how this can be used to facilitate participatory learning.

Learning is not usually an outcome of formal teaching. Instead it comes from a process of self-development through experience (Box 1). In almost every training situation, you will encounter a diverse group of people with different training needs. The learning approaches you use should cater to these different needs.

BOX 1
HOW ADULTS LEARN

- Adults are voluntary learners. They perform best when they have decided to attend a training session for a particular reason. They have a right to know why a session is relevant or important to them.
- Adults have usually come with an intention to learn. If this motivation is not supported, they will switch off or stop attending.
- Adults have experience and can help each other learn through an atmosphere of sharing.
- Adults learn best when they are actively involved.
- Adults learn best when the context of the training is relevant to their own lives and experiences.

Most trainers do not pay sufficient attention to individual training capacity. Yet the capacity to learn is influenced by the ability of trainers to:

- Involve themselves fully, openly and without bias in new experiences;
- Reflect on and observe these experiences from many perspectives;
- Create concepts that integrate their observations into logically sound theories; and,
- Use these theories to make decisions and solve problems.

Learning occurs best through active involvement. This implies that the process of learning (or training) matters more than the actual subject. Adults have a particular problem with learning. As we grow older our short term memory becomes less efficient. We find it harder to translate what we see or hear to long term memory. Any method that relies too heavily on short term memory, such as lectures and lessons, is doomed to fail.

For learning to take place, new ideas and practices must be internalised. Unless trainees or participants are motivated, they will not and cannot learn. Throughout any course, workshop or session, you must tap into and keep stimulating the motivation of participants. A key element of motivation is strong self-esteem in participants so it is important to seek ways of building on this (Box 2).
**BOX 2**

**TRAINER’S MOTIVATION CHECKLIST**

- Do you know why the participants are present?
- Have they been asked to state their personal goals and what they hope to achieve by the end of the course?
- Do you have a system of feedback on motivation during the course?
- Is there provision for feedback at the end of the course on whether they have achieved their goals?
- Do you have a system for guiding participants whose motivation or goals are not well matched to your or the group’s?
- Do you have a system for monitoring and controlling latecomers, poor work, inattentiveness?

Good communication and the free exchange of information is at the heart of all training and human resource development. However, there are many barriers to communication in groups. When involved in a learning process which requires behavioural change, many trainees become embarrassed and feel threatened or vulnerable. Many responses that we, as trainers, may give in such situations might seem helpful but can increase the feeling of pressure and isolation. For example, providing a solution or advice can imply that the trainee is too stupid to figure out the problem. When we moralise or lecture, we imply that our values are more important than their feelings.

Many observations are sent as non-verbal cues (e.g. posture, eye contact). A sensitive trainer will pick up both verbal and non-verbal indications of strong emotions. Remember that what people say is not always what they mean: try to read behind what is being expressed.

If making assumptions and ignoring feelings prevents good communication, then helping a person to express his her feelings will help build it. How well do you listen? Using skills to listen is one of the most helpful things we can do. Different ways to achieve this and respond openly include:

- **Passive listening.** Remain silent and let the person talk. Communicate interest through non verbal behaviour.
- **Acknowledgements.** Use brief expressions that communicate understanding and acceptance, such as ‘I see’ or ‘aha’.
- **Door openers.** Instead of direct questions use expressions which invite the person to expand on or continue expressing their ideas. For example ‘I’d like to hear more about that’.
- **Content paraphrase.** Repeat what you’ve hear to confirm accurate understanding, such as ‘So you’re suggesting that....’.
- **Active listening.** Help the person to understand both the thoughts and feelings of their communication by describing your impressions of what has been said, such as ‘Her response has been disappointing to you’.
- **Provision of support.** Respond to legitimate needs of support by providing information.

By listening carefully to feedback you can gauge how well the issues under discussion are being understood. But do not let your emotions get in the way: when faced with criticism it is easy to become defensive. Be careful not to block participants’ free expression by showing your impatience or scepticism. Try to understand the opposing perspective and try not to over-react.

Some of the characteristics of a good trainer (Box 3) can be attributed to people’s personality. Others can be learned or improved through practice. Most importantly, though, the learning of facilitation requires you to be self-
critical about your own performance as a trainer at each stage of the session or workshop.

**BOX 3**

**WHAT MAKES A GOOD TRAINER?**

- a warm personality, an ability to show approval and acceptance.
- social skill, an ability to bring the group together without dominating it.
- a teaching manner that generates and uses the ideas and skills of participants.
- organising ability, so that the session flows without logistical problems.
- skills in noticing and resolving participants’ problems.
- flexibility in responding to participants’ changing needs.
- knowledge of the subject matter.

How you communicate with participants will depend on whether you are manipulating the group or facilitating it. There is a big difference between the two approaches. Manipulation is trainer-centred. You are in charge and everyone knows it. While it is essential that you are clear about the learning objectives, facilitation is a more learner-centred approach. You are helping other to learn and you will be learning too.

Giving constructive feedback and encouraging self-reflection are critical skills. If you do not let participants know when they are doing things well, they will not be able to reinforce the good things they are doing. There are five simple rules to giving feedback:

- **Give the feedback as soon as possible.**
- **Limit comments to two or three aspects of good or bad performance.**
- **Don’t immediately correct mistakes yourself**, such help creates dependency, let the trainees learn through helping themselves.
- **Give praise first** before offering negative comments. Build trainees self-esteem.
- **Criticise the performance, not the person.** Whenever you offer feedback, make sure it encourages the participant to act upon it.

**BOX 4**

**TRAINER’S CHECKLIST TO ADULT LEARNING**

- is the atmosphere friendly and inviting?
- have you made plans to relieve anxieties that trainees might feel?
- will your teaching methods build on and use the skills of participants?
- will learners by ‘rewarded’ for their contributions?
- does the work allow participants to measure their own progress?
- do you make it clear that you are available for additional support, if required?
- are the first few minutes of your sessions attention-grabbing or do you lose people from the start?
- do you build in regular opportunities for feedback, reinforcement and practice?
- are you avoiding lectures or at least limiting them to 10-20 minutes?

**NOTE**

Taken from *A Trainer’s Guide for Participatory Learning and Action*. Published by IIED. Price £14.95 + postage and packing (25% UK & Europe, 35% airmail)

Next issue: You, the trainer and facilitator
Tips for Trainers: dominance and submission

- **Objective**

  To enhance awareness of verbal and non-verbal expressions of dominance and submissiveness.

- **Time**

  15 - 20 minutes

- **Procedure**

  1. Ask participants to form groups of three. Choose one person to be dominant, one to be submissive and one to observe.

  2. Explain that the dominant person can lecture or otherwise be assertive on any subject and in any way (excluding physical violence and nastiness!!).

  3. If people are sitting on chairs, the submissive person can be asked to sit on the floor either throughout, or halfway through, the exercise. An interesting variation is for the dominant person to sit on the floor half way through the exercise and the submissive person to take the chair.

  4. Brief the observers to look out for verbal and non-verbal expressions of dominance and submission (such as tone and volume of voice, body position, posture, eye contact, awareness of other people, communication, interrupting or ignoring etc.) This can be done quickly by asking all the others to look away and showing a large sheet of paper with brief instructions and cues or indicators of dominance or submissiveness.

  5. Allow five minutes for the talking and dominating phase, then ask the observers to give feedback to their groups. Ask the observer to particularly note changes in roles that accompany moving from the chair to the floor and vice versa.

  6. To add interest and a range of learning, feedback from the different groups of three can be merged by combining into groups of six people.

  7. Conclude with a plenary discussion eliciting key points.

- **Comments**

  This exercise can be repeated with changes of roles for different people, but not to the extent that participants get bored! Those who have been most expressive could later be asked to role play in other exercises.

  *Source: Robert Chambers, Institute of Development Studies, UK.*