



# PARTICIPATORY MONITORING AND EVALUATION

Field Experiences

KARNATAKA-TAMIL NADU



inter  
cooperation

Natural Resource Management  
Rural Economy  
Local Governance and Civil Society



**PARTICIPATORY MONITORING AND EVALUATION:  
FIELD EXPERIENCES**

**NGO PROGRAMME KARNATAKA-TAMIL NADU  
SERIES 1 2005**

## **PARTICIPATORY MONITORING AND EVALUATION: FIELD EXPERIENCES**

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## Acronyms



GIS	Geographical Information System
GPS	Global Positioning System
NRM	Natural Resource Management
NTFP	Non-Timber Forest Products
PME	Participatory Monitoring and Evaluation
PRA	Participatory Rural Appraisal
RES	Rural Education Society
RWT	Rural Welfare Trust
SCOPE	Social Centre of Peoples' Education Trust
SHGs	Self Help Groups



In January 2003, a group of over 20 staff members of the partners of the IC NGO programme met in the village of Honnashettahalli, Kolar District, Karnataka (hosted by the NGO partner Grama Vikas) to deepen their understanding on participatory monitoring and evaluation. We had a three days training programme in which together we explored the scope of community-centred methods in monitoring and evaluating the development efforts supported by the NGOs. The training was learner centred, as participation can only be 'taught' by adopting and practicing it.

We spent our time discussing the differences between monitoring and evaluation, on different types of participation, on the use of PRA tools for impact assessment, etc. All partners had ample experience with community mobilisation and adopting participatory methods in implementing the activities supported by the project. Nevertheless the discussions led us to the basic questions of whose reality counts, whose information need is met and whose criteria are used. Together we tried to 'demystify' the concept by looking into concrete situations and assessing the possibilities to bring local level perspectives into the mainstream of M and E. Different participatory methodologies were considered and their implications were discussed.

Following three days of lively discussions, a number of ideas emerged to translate the concepts into action. I am happy to note that after the initial workshop, the participants shared their ideas with their colleagues and the groups at village level and that they took the step to adopt and adapt PRA methods for monitoring and evaluation. I enjoyed reading about their experiences with the use of participatory tools to capture changes and to analyse impacts.

The examples presented in this publication set out a range of methodological challenges for PME in the context of rural India. They demonstrate the use of visualisation techniques – diagramming and mapping – for analysis by community members. The eight cases offer insights in assessments from a gender perspective and provide the reader with practical tips on the application of participatory appraisal tools that ensure a meaningful role for all, the community as well as the NGOs. All together they point to the importance of people centred approaches to learning, analysis and development.

November 2005  
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Participatory monitoring and evaluation, by its very nature, calls for the involvement of many people. I would like to thank in particular the many villagers in the project villages who took part in the exercises described in these pages, and contributed their views and ideas.

The NGO Programme Karnataka-Tamil Nadu has 12 NGO partners. Whilst seven feature in the examples outlined, I would like to acknowledge the contribution of all partners to the development of PME approaches under the Programme. With regard to the examples described in this document, I would like to acknowledge the particular contribution of the following persons, whilst recognising that all field staff had a role in the process. At Grama Vikas, Rao and Pavithra; at Keystone, Snehalata Nath (who also had a greater role in overall document preparation) and Robert Leo; at Prakruthi, Narayanappa and Ragvappa; at RES, Mallapur and Jayashree; at RWT, Anand Lobo and RaniKittur; at SCOPE, Magimaidas and Mary P; and at Vikasana, Varghese, Chandrashekar and Chandrappa.

Annette Kolff played an important role in this document, as she facilitated a Participatory monitoring and evaluation Workshop organised through the Programme in January 2004, during which the idea of recording and sharing examples of PME under the Programme first emerged. She kindly provided many suggestions on the final document, and also wrote the Foreword.

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Coordinator, NGO Programme Karnataka-Tamil Nadu.





## Executive summary

This publication is mainly intended for field practitioners in rural development, particularly participatory natural resource management. It documents the field experiences of seven of the partners under the SDC-IC NGO Programme Karnataka-Tamil Nadu in participatory monitoring and/or evaluation of their activities. After a brief introduction to the concept of participatory monitoring and evaluation (PME), it sets out a variety of examples, chosen as 'real life' situations that field practitioners are likely to experience. For each example, a short outline of the PME tool used is given, followed by a description of how the tool was applied for a particular purpose in the field. A small text box provides an introduction to the partner concerned. The partners located in Karnataka are Grama Vikas and Prakruthi in Kolar District, Rural Education Society (RES) and Rural Welfare Trust (RWT) in Belgaum District, and Vikasana in Chikmagalur District. In Tamil Nadu, case examples are drawn from Keystone Foundation (Kotagiri District) and Social Centre of Peoples' Education (SCOPE) Trust, (Thiruvannamalai District).

All the field situations concern activities that have been supported under the Programme. Four of the case examples relate to general natural resource management interventions. Activities mentioned include the construction of check dams, gully plugs, terraces and farm bunding (for soil conservation and water retention); tree planting (both for soil retention and for biomass or specific tree products); and farm pond construction (for local irrigation, water for livestock, and occasionally also fish farming). Specific activities detailed in the other four case examples are tank silt application for improving soil fertility, the promotion of traditional food crops, the renovation of a community farm pond and – somewhat differently, but a common type of activity, a skills training programme (in this case, training in wool processing for women of a shepherd community). The Programme has placed emphasis on supporting and empowering marginalised groups in society, and promoting gender and equity. Thus, the examples document work with tribal people and other community groups, including women, who have traditionally been the subject of social discrimination.

The specific PME tools described are those commonly used in participatory appraisal processes – participatory mapping, transect walks, time lines, photographic comparisons, matrix ranking and well-being ranking – as well as some perhaps slightly less commonly used, notably spider web diagrams and the H-form.





## Why this publication?

This publication arose out of a request from all twelve partners of the SDC-IC NGO Programme Karnataka-Tamil Nadu (hereafter referred to simply as the Programme). With the support of the Programme, these partners have implemented a variety of Natural Resource Management (NRM) activities in selected villages over the past ten to seven years (see box 1). All the partners adopt participatory approaches to development, based on a well-established rapport with the concerned village communities. The activities are planned and reviewed through group discussions (facilitated by the partners), the planning itself often including the use of participatory tools. Until recently,

### Box 1: The NGO Programme Karnataka-Tamil Nadu

*Supporting sustainable natural resource management with special emphasis on the socially/economically marginalised (women, dalits, tribal people)*

The NGO Programme in these two States began in 1996, partnering with NGOs having a sound grassroots base in order to promote a technically sound, people-centred approach to natural resource management (NRM). In its current phase, the Programme is working with 12 NGO partners (6 each in Karnataka and Tamil Nadu). Key features are:

- supporting a holistic approach to NRM based on activities related to the conservation and sustainable use of water on rain-fed lands
- strengthening the capacities of the communities and partner NGOs in participatory monitoring and evaluation, and documenting results and lessons learned
- promoting self-reliance through the enhancement of traditional livelihood systems [such as the collection and marketing of Non-Timber Forest Products (NTFP) by tribal peoples, sustainable agricultural practices for food security, etc.]
- strengthening existing people-based institutions, including building capacities in gram panchayats
- promoting linkages with other local level institutions such as financial institutions, farmers' organisations, and in particular panchayat raj institutions
- supporting gender-balanced, equitable development with an emphasis on working on common property resources rather than private lands.

The programme is working selectively in the more remote and disadvantaged areas of the two States, focusing on tribal communities, dalits, and other marginalised groups. Human and institutional development is a cross-cutting theme in all areas of interventions.

however, there had been little systematic community-based monitoring and evaluation. As part of the Programme's consolidation phase, the partners identified this as a matter on which they would like to work further. Following the outcome from two workshops and considerable field interactions, this document sets out a variety of examples in participatory monitoring and evaluation. Different tools are used, but in most the focus is on evaluation rather than monitoring, given the stage in the programme cycle.

The purpose of this document is to provide development field workers – both staff of the programme partners and others – with specific examples of participatory monitoring and evaluation, using a variety of participatory tools. These examples are chosen as those to which field workers can readily relate. The document is in first instance produced in English, but will also be translated into Kannada and Tamil, as in many cases it will be more useful in the local language. It is hoped that the English version will serve particularly for training purposes. Given the depth of experience in India in participatory appraisal tools, the document does not seek to reproduce the large number of existing publications (mainly in English) on the subject. Instead, it provides a summary description of particularly useful tools and refers readers to selected publications for more information.

Following this introductory section, the main part of the document, the second section, describes tools and examples. For each case study, the tool is first described, followed by the practical field experience of a partner working in Karnataka or Tamil Nadu. A final short concluding chapter outlines some of the challenges and lessons for the future.

## What is PME?

### *Changes over time*

There are many definitions of participatory monitoring and evaluation, but perhaps the simplest is *keeping track of changes with the community stakeholders*. Box 2 – adapted from Estrella *et al* (2000),

### Box 2: Features implied within Participatory Monitoring and Evaluation

<b>Participatory</b>	<ul style="list-style-type: none"> <li>Shared learning</li> <li>(in this context) Joint decision-making</li> <li>Co-ownership</li> <li>Democratic process – involving everyone in the community, not just the most vocal members</li> <li>Mutual respect</li> <li>Empowerment</li> <li>Enhanced mutual understanding</li> </ul>
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>Knowing where we are</li> <li>Observing, recording change</li> <li>Regular, timely assessment</li> <li>Increased, jointly shared accountability</li> <li>Routine reflection</li> <li>Feedback</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>Reflection process on what has occurred</li> <li>Assessment of achievements/impacts over a longer period</li> <li>Learning from experience</li> <li>Valuing change</li> </ul>

Overall, PME should serve to increase the **analytical capacities** of community members, and empower them to question, and become **pro-active** in development initiatives.

and incorporating ideas volunteered by participants at a programme partner workshop in January 2005 – provides some further insight.

From this it may be seen that monitoring is a periodic but regular activity for ‘keeping track’ of what is happening in any project intervention. In this way, changes over time can be recorded effectively. Furthermore, any unexpected or new circumstances can be taken into account, and incorporated in further activities. Evaluation, by contrast, happens normally at the end of a project – or at a pre-defined point within a long period of project interventions (for example, a mid-term evaluation) – and entails a reflection and assessment of what has been achieved and learned.

Ideally, the system of monitoring and evaluation should be planned as an integrated part of project design. It should start before the commencement of project activities, with decisions on what should be monitored, and eventually evaluated. These criteria are often defined as indicators. Furthermore, if the system of monitoring and evaluation is to be truly participatory, the indicators and the means of determining them should be discussed, identified and agreed by the community stakeholders at the beginning. Indeed, it should then be these same stakeholders who decide how often progress should be reviewed, who should do it, using what method, etc.



*Water essential for all*

This may be illustrated by an example. In this hypothetical case, a donor-funded project is supporting the renovation and management of a community farm pond over a five-year project period. The community members decide that one indicator should be the availability of drinking water for village livestock all year round (including throughout the dry season). They further decide to monitor water

availability for all village livestock during the critical month of peak water shortage, April, every year. A small group of villagers representing all community interests (different castes and socio-economic groups; wealthy and landless, etc) is elected to carry out the monitoring task, with facilitation (if required) from project staff. To gain full insight, monitoring includes participant observations on water availability for different types of livestock; and livestock belonging to different households (near and further away from the pond, and belonging to different communities in the village). Perhaps they use a matrix ranking for this task, linked to a participatory mapping exercise conducted at the beginning of the project, which identified the location of all households and the type of livestock owned by them. A well-being ranking could have recorded further information about the different households. At the point of monitoring in the second year, it is realised that water is insufficient, that goats are trampling the pond banks, and that disputes are arising over pond use. Households far from the pond claim that they are being discriminated, with those close to the pond using more water. A village meeting is called for, and it is decided that the channel feeding the pond needs to be modified to maximise the inflow of water, and

that access to the pond by livestock needs to be improved by making one of the banks more gently sloping. It is further decided that the livestock of all households should have access to the pond, and this should be regulated on a fixed time basis to ensure efficient water use. At the end of five years, the community members evaluate how effective the pond had been in providing drinking water to the village livestock throughout the period; what lessons were learned in the monitoring process; and how the pond should continue to be managed in future. They also identify important factors that should be taken into account when planning and designing farm ponds in other similar villages. Using the information collected in their monitoring and evaluation exercises, they are also able to demonstrate to the donor what has happened – and perhaps use this information to argue for further funding or a different form of intervention. Whilst this example is highly simplified, it gives an idea of the issues that might arise in a PME process.

In the hypothetical example, PME was integrated into the whole project design. What happens, however, when a rigorous PME process has not been put in place from the start? The practical reality is that thinking through a system of monitoring and evaluation is often not given priority at the beginning of development interventions. However, it is common for a participatory planning exercise to take place, even if this is not then followed up in a PME process. In such circumstances, participatory methods can still be used to capture community perceptions of change, even at a late stage. They can also build on informal systems of monitoring through observations and community discussions that have taken place. This is not the same as the full PME process, but it is a step in that direction. Most (although not all) of the examples documented in this manual are in fact closer to this situation of bringing PME into an existing intervention, rather than incorporating it from the start.

### ***Who wants to know what has changed?***

Although the above discussion makes clear that PME should be based on the ideas and wishes of the community stakeholders, it is a fact that local people rarely demand information in such a structured manner. They form their own opinions. It is usually NGO staff, donor agencies or other interested persons (Government agencies, researchers, journalists) who wish to have changes captured and, if possible, quantified. Nevertheless, the hypothetical example in the previous section showed the potential practical value of PME to community members.



*Most of all, PME should be enjoyable*

Consulting local people in a monitoring and evaluation exercise does not automatically make the process participatory. If based on a one-way process of information collection, it can be purely extractive. PME, by contrast, should entail a two-way exchange of information. Most of all, it should be an enjoyable process in which everyone feels that they have learned something.

### **Appropriate tools**

Open discussions with the community stakeholders, in which everyone is encouraged to speak out, are an essential part of PME. However, discussions alone are often insufficient to quantify change. The use of participatory tools usually cannot give precise figures either (certainly figures need to be cross-checked with different sources before being quoted as 'facts'), but it can result in quantified information that can be used for cross-comparisons (e.g., 'before' and 'after', etc.). This adds meaning and value to discussions. For example, a group might say that 'everyone' in the village has benefited from a given intervention. However, if asked to analyse through a matrix *what* specific benefits have arisen, and then *who* has enjoyed them, a far more detailed picture may arise.

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*Participatory Rural Appraisal (PRA) tools are often only seen as appropriate for gathering information at the beginning of an intervention, as part of a process of appraisal and planning. Development workers may talk about having 'done' a PRA, sometimes seeing it as just a step towards getting funding. However, PRA tools have a much wider range of potential uses, and can often be readily adapted and used for participatory monitoring, and for participatory evaluation.*

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### **PME methods and examples**

The examples documented in this manual are intended to provoke ideas and demonstrate practical realities. They are not selected as models to be followed, but as cases of **real situations**, described by participants as learning experiences worth sharing. To stimulate further thought, particular points of note are given in comment boxes. For each case example, a small information box provides an introduction to the partner concerned, and indicates the communities with whom they are working. All the partners work to empower those who are disadvantaged in society – be they tribal communities, dalits or other marginalised groups – and emphasise gender awareness and promote equity.

The examples described are as follows:

**Transect walk:** is a means of involving the community in both monitoring and evaluating soil conservation changes that have taken place over the period of programme intervention. This method entails direct observation whilst incorporating the views of community members. The case example comes from the Nilgiri hills of Tamil Nadu, where the partner **Keystone** is working with tribal communities.

**Spider web diagram:** in this case is used as a means for participants to monitor and evaluate key areas of a programme. The spider web is a simple diagrammatic tool for use in discussions; it does not entail any direct field observations. The case example comes from the Jawadhu hills of Tamil Nadu, where the partner **SCOPE** is working with tribal communities.

**Participatory mapping:** is perhaps the most easy and popular of participatory tools, used here to evaluate project interventions. The example is taken from Chikmagalur district, Karnataka, where the partner **Vikasana** is working with generally poor and marginalised communities.

**Photographic comparisons:** is another easy visual tool, here used to stimulate community discussions in evaluating programme interventions. In this case, the partner **RWT** is working with marginalised communities in Belgaum district, Karnataka.

**Matrix ranking:** in this case used to evaluate the impact of skills training to women belonging to a shepherd community. The example is taken from Belgaum district, Karnataka, where the partner **RES** is working with the Kuruba shepherd community.

**Time line:** a tool used to elaborate historical change. In this example, only a simple time line is given, comparing two points in time (usually there would be more). The case is a second one from the partner **Keystone**, working in the Nilgiri hills of Tamil Nadu.

**H-form:** a simple monitoring and evaluation tool, used in this case to evaluate tank silt application to farm land. The partner, **Grama Vikas** is working with marginalised farming communities in Kolar district, Karnataka.

**Well-being ranking:** is described in the final example, being used to differentiate the benefits that different community members have gained from the renovation of a community pond. This example comes from the partner **Prakruthi** in Kolar district.







## 1.1. Transect walk: the method

### *Materials needed*

For the walk itself:

- notebook and pen
- appropriate clothing and footwear for the area and time of year
- (maps or aerial photographs if available)
- (compass)
- (GPS, Global Positioning System, if the details of the transect are to be incorporated into a GIS, computerised Geographical Information System).

For the subsequent write-up:

- large sheet paper
- coloured pens
- (small coloured cards for marking particular items of interest).

Transect walks are used to gain an understanding of the natural resources of a village, their diversity and associated problems, and to assess opportunities. Parameters usually covered include topography, land use and ownership, soil features, vegetation, crops, etc. They are very useful in planning land development interventions and identifying sub-zones for special consideration. If conducted at the beginning, middle and end of the project period (during the same season), they can be used for monitoring and evaluating changes along the particular transect.

Transect walks can be used to compare reactions/discussions of different types of stakeholders, such as government officials, NGO team members, the local community, etc. They can provide a good cross-section of information that can be used for specific purposes of verification and appraisal.

A participatory transect walk entails taking a walk along a pre-determined route with a group of key informants from the local community, and exploring the geography of the area through their eyes. The walk should take in a cross-section of the area of intervention, covering all the agro-ecological zones. For example, this might cover from ridge to valley in a watershed, or straight across a slope if interventions are all roughly at the same elevation.

### *Steps to conduct a transect walk*

1. Identify a group of key informants. Ideally, they should include older and younger people, women and men, and they should all be willing to walk some distance, and share their observations.
2. Discuss with the group the purpose of the walk, and decide on the path that should be taken to cover the full geographical variation in the area. The 'path' may not be a path at all –

ideally, as a true cross-section, it should be a straight line. However, if the path roughly corresponds to at least part of the cross-section, it may be easier to use it. Maps or aerial photographs may be of use, if available, but are certainly not essential. For monitoring and evaluation purposes, it is important that the line of the transect walk can be readily found again and again, possibly after substantial periods of time.

3. Decide with the key informants what parameters should be used for recording observations. Typical ones might include land type, soil type, natural vegetation (perhaps recording certain key 'indicator' species), local fauna, crops, water bodies, and land ownership. Local definitions of these parameters should be explored – for example, names of land and soil types, or of locally important plant or animal species. It is best to limit the parameters covered to five or six at maximum; trying to collect too much information may only result in confusion.
4. In general, the easiest and most stimulating part of transect walks is the walk itself and the discussions that arise during it, with the local people as experts. Documenting it afterwards can be more difficult. It helps to clearly decide specific observation points along the transect walk at which everyone stops to record all parameters.

## 1.2. A transect walk in practice

### *Keystone Foundation, Kotagiri, Tamil Nadu*

Keystone Foundation works on issues of natural resource management, local governance and enterprise development with tribal communities in the Nilgiri hills of Tamil Nadu. Keystone has been a partner of the SDC/IC NGO programme since 2000 – working in a total of 14 tribal villages. Supporting the tribal communities to develop their lands is a central activity. This is challenging in purely technical terms, as the land to which the tribal people have traditional claim covers steeply sloping, rain-fed areas in the rain shadow of the Nilgiris (annual rainfall below 800 mm), which are highly prone to erosion. To develop their land, the people must clear weeds, construct stone contour bunds and terraces to control soil erosion, and then gradually establish a mixture of locally adapted species. These species include *Gliricidia sepium*, castor, lime, and Nelli (*Embilica officinalis*), which are planted to bind the soil with their roots and produce biomass as well as useful end products. At the same time, millet and other traditional food crops are cultivated; and once shade has been established, coffee is introduced. Eventually more varied long-term cash crops (e.g., pepper, cloves) are introduced, although this depends on local conditions, particularly water availability. Some lands are assigned only for millet and vegetable cultivation. The whole approach emphasises diversity, low input (in terms of pesticides and fertilisers), and ecological appropriateness.

### *A transect walk for 'base line' information*

In 2000, before Keystone began activities in five focal villages, staff undertook a transect walk with local resource persons across the entire terrain of each village. The transect walk cut through the terrain from the highest to the lowest elevation, following a local path wherever possible, and using specific landmarks to enable the same transect to be followed at a future date. The transect covers grazing land, water sources, land under cultivation, and habitations. Whilst undertaking the walk, they made notes on the following characteristics at regular 50m intervals:

- land form – nature of slope and other topographical features
- soil – notably the presence of any soil conservation structures
- water – presence of springs or other water bodies; ground water level was measured
- crops – dominant cropping pattern

- vegetation – main tree species (natural and planted); other prominent woody and non-woody species
- habitation – type of settlement and facilities
- other comments by resource persons – including present and former land uses other than agriculture, bird species found locally, etc.



*Developing traditional tribal lands on the slopes of the Nilgiris is a laborious matter*

### ***A repeat transect walk for monitoring activities***

Five years later, the transect walk was conducted again as a participatory monitoring exercise (Keystone intends to conduct the same exercise at five-yearly intervals). This example documents the transect walk undertaken in the village of Semmanarai.

Semmanarai is a village of scattered settlements over a terrain covering some 87ha. The total length of the transect walk was 4,700m, exactly along the route used previously – which partially used local paths, and otherwise cut across land from one landmark to another. Although traversing from highest to lowest elevation, the transect covers irregular terrain in-between, including three natural *nalas* (small streams) and swamps.

The first transect walk was conducted in June 2000, and ideally the exercise should have been repeated in the same month. However, for internal reasons the second transect walk was conducted in January 2005. This means that due allowance had to be made for the seasonal differences. It should also be noted that the transect walk took place after the first good rainy season in the project period; prior to 2004, there had been three years of drought.

The intention was that the same persons who had participated in the first transect walk would conduct it again in 2005. In the end, the team comprised three such persons (two from Keystone, and one from the community – all male). However, any persons met along the way were asked for

their observations, and in this way the views of five (relatively elderly) women were incorporated.



*In all transect walks, men were more ready to participate than women, having more time available (women excused themselves from walking far from the village, saying they had other work to do). When the Semmanarai transect walk was conducted in*

2000, seven people participated (three from Keystone, and four community members). At that time, one incentive to participate was the hope of finding wild bee colonies – two were found and subsequently hived.

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## Results

The results were recorded by keystone in a transect chart. A few specific points are as follows.

- The resource persons commented that it is easier to walk along the paths these days; there is less vegetation surrounding the paths, which eases passage, and they no longer have to keep an eye out for bears (which used to be a potential danger, hidden in the undergrowth). The improvement of the paths had not been a direct intervention of Keystone; however, it is an associated development as through Keystone's work, the tribal communities have developed a greater voice in the Gram Panchayat, and have been able to lobby successfully for funds to renovate the paths.
- There are fewer open springs and small ponds on the upper slopes; water sources are currently drained through pipes to the inhabited areas down slope. (This is a direct result of programme interventions).
- Fewer trees are felled at pole stage. This was said to be the result of a government house-building programme which uses mainly stones and cement, and hence there is a lesser demand for wooden poles for house building in the area.
- The vegetative cover on the lower slopes is denser, and richer in biodiversity. This is considered a direct result of Keystone's interventions to introduce species such as *Gliricidia sepium*, lime, etc, and then cash crops such as coffee. In the year 2000, eight species dominated – coffee, tea, coconut, mango, lime, silk cotton (*Ceiba pentandra*), silk oak (*Grevillea robusta*), jack (*Artocarpus* spp.) and *Erythrina* spp. In 2005, the commonly found species had increased to some 22 (as result of planting). In addition to the eight previously mentioned, these were: arjuna (*Terminalia arjuna*), areca nut, bamboo, banana (at least four varieties), *Cassia fistula*, Chebula (*Terminalia chebula*), cinnamon, clove, Dammer (*Canarium strictum*), gooseberry, nutmeg, Malabar palm, *Pongamia pinnata*, and sweet tamarind (*Pittoselobium edule*).
- The community members also observed that, in their opinion, the soil organic matter has improved in the fields close to the settlements. This was explained as being the result of better management and use of cow dung and urine, as promoted by Keystone.
- Around the houses in the settlements, cleanliness and general standards of sanitation have improved, due to improved water supplies.
- In 2000, no vegetables were cultivated, whereas in 2005 a number of vegetable plots were observed. These included French beans as a cash crop, as well as brinjal, tomato, onion and chillies for domestic consumption.

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*Some of the changes recorded had nothing – or little – to do with programme activities, whilst others could be seen to be direct 'cause and effect'. Nevertheless it is important to record all changes, whatever the reason.*

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It was realised that the time taken to conduct the transect walk the second time was less. This may be attributed to a variety of reasons, ranging from the paths being more open and easy to traverse; the terrain being more familiar; and even some of the participants (members of Keystone

staff) being more accustomed to walking than before. However, it is also important not to rush – to take time to observe changes.

Keystone intends to continue working in all the villages that have been supported through the Programme. Thus, this transect walk was very much a monitoring, not an evaluation, exercise. The information recorded in both the first and second transect walks will be kept by Keystone, and used as reference material to compare against observations made in a third transect walk to be conducted in another five years time, and possibly a fourth in a further five years. In this way records of observations by both tribal people and Keystone staff will be built up over an extensive time period of 15 to 20 or more years, depending on how long it is felt appropriate to continue monitoring.

### ***Suggestions on the method***

The main suggestion on the method is to always conduct the transect walk at the same time of year, to ensure that apparent changes observed cannot merely be attributed to seasonal differences. It is also helpful if at least some of the people who conducted the earlier one (or ones) also conduct the repeat walk as this helps to ensure that comparisons are real, rather than based on differences of individual perceptions. At the same time, including the views of people who were not present for earlier walks can give fresh insights.



*Separate men and women group discussions*

## 2. Monitoring and evaluating NRM interventions



### 2.1. Spider web diagram: the method

#### *Materials Needed*

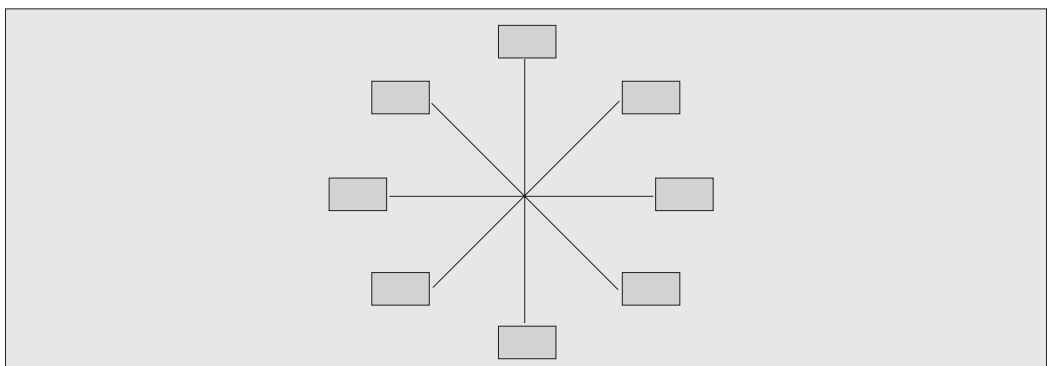
- large sheets of paper
- cards and coloured markers
- notebook.

The spider web diagram is also called a cobweb diagram, participation wheel or an evaluation wheel. It is a highly visual method for analysing the relative importance of, or progress on, different aspects of an intervention. This exercise can be done to plan projects, but particularly to monitor and evaluate them. Each aspect is represented by one arm of the frame of the web, and is graded from 1–10. It is also possible to rank programme/village/group/individual performance during (monitoring) or at the end (evaluation) of a programme.

#### *Steps in conducting a Spider Web Diagram*

1. Discuss the purpose of the exercise with the participants, and reach a common decision on the aspects to be rated by them, depending on the exercise. These could be the performance of the project against the original objectives, the various activities of the project, the extent of developments in different villages, etc.
2. Ask the participants to write these aspects on cards or represent them by drawings. Take a large paper and arrange the cards radially, away from the centre. Join the centre to the card with a straight line. (See diagram). This line represents a scale from 1–10.
3. Ask the participants to score each of the aspects based on the performance and ask them to mark the score on the axes of the circle. This can be done either by asking each individual to

#### **Framework for a spider diagram**



present her/his ideas and mark the score, and further discuss to reach consensus on a collective score; or by discussing first and then marking the collective score accordingly.

4. Join the score on each of the axes, with a line as shown in the diagram on page 15.
5. Discuss the scores and the underlying causes/reasons.
6. Document the exercise and take notes of the reasons stated by the participants. These results can then be used for participatory planning, monitoring and evaluation.

## 2.2. Spider web diagrams in practice: monitoring change

### *Social Centre of Peoples Education (SCOPE) Trust, Thiruvannamalai, Tamil Nadu*

SCOPE Trust is working in Chengam block of Thiruvannamalai district in Tamil Nadu, with Malayali tribal people belonging to the Gounder and Kallar communities. Living in scattered settlements in degraded, often steeply sloping forest areas of the Javadu Hills, these communities were once hunter-gatherers. They are now settled in villages that have been provided with substantial infrastructure (such as overhead water tanks, electricity supply, schools, etc.) through various government schemes (facilitated by SCOPE Trust). Nevertheless, the villages remain quite remote, with poor vehicular access. SCOPE Trust seeks to promote sustainable natural resource management with an emphasis on the conservation, utilisation and management of soil and water resources. Important activities supported under the Programme include bunding in hill tracts, levelling of the inter-bund area, renovation and conservation of traditional water bodies, etc. Under the Programme, SCOPE Trust has been working with the tribal communities of three villages since 2001, undertaking land bunding to conserve and improve the fertility of the soil, water conservation through percolation ponds and check dams and to reduce soil erosion. The NGO has facilitated the organisation of SHGs through which support is channelled.

### ***Monitoring changes due to programme interventions using the spider web method***

SCOPE has been using this method for nearly three years to measure progress of the programme activities with the community participants in the three villages of Kil Thatyapet, Kil Kollai and Kotur Kollai. SCOPE staff members first conducted this exercise in December 2002 to review the progress and effectiveness of their interventions.



*SCOPE Trust works in scattered settlements in the Javadu hills*

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*The spider web method was introduced to SCOPE Trust a few years ago by an external facilitator, and has since become quite widely used, staff being very familiar with it as a tool.*

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The meeting was held in one of the villages and attended by 16 women and 14 men participants. Participants listed out the project activities, and then ranked them in order of priority. (These went beyond the activities done under the SDC-IC programme, because the participants could not differentiate which activity was funded by which organisation.) A similar exercise was done again in April 2003. This time the participants listed fewer activities and rated them in order of priority. This meeting was attended by 33 women, and 10 men from the same project villages.

It was found that the group rated the activities according to the amount of work done during that time. From the table we see that PRA maps were done by December 2002 and thereby have no rank in April 2003. Similarly, other activities like nursery raising, bunding and surface tanks were started and their activity level was less by April 2003; thus they were ranked lower in priority. This does not mean that the quality of work was low, but only that the level of activity dropped. The participants discussed at length how some of the training activities were integrated into the overall heading of Self Help Groups, why certain activities had not started, or were not relevant. They also discussed the reasons for giving the scores and how further improvement could take place. Thus, the spider web analysis provided a good means to stimulate discussion and define future priorities. As is seen later in the text, by 2005 when the programme was evaluated, priorities of the people and group had changed and a different set of criteria emerged for ranking programme activities.

**Table showing the results of the two exercises conducted**

Project Activities	Rating Dec, 2002	Rating April, 2003
PRA mapping exercise	10	
Nursery	6	3
Village Committee	5	
Veterinary camp and training	6	6
Leaders & Members training to SHGs	7	
Income & Expenditure Management training to SHG	0	
Bunding	6	3
Surface Tank	7	5
Horticulture	0	
Vegetable Cultivation	0	4
Biodiversity & Environment Awareness	5	2
Check dam	7	4
Self Help Groups	8	4
Forest Plants	4	
Bio-pesticides and Fertilisers	0	

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*"Bunding construction has increased water retention. Earlier we could not put groundnuts, but now we can." Gopal, participating farmer*

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*"The Check Dam was useful for adding 20 acres of land for cultivation. However, to store more water and stop the force of the water during the monsoons, we should build another check dam upstream." Krishnamoorthy (Kil Kollai)*

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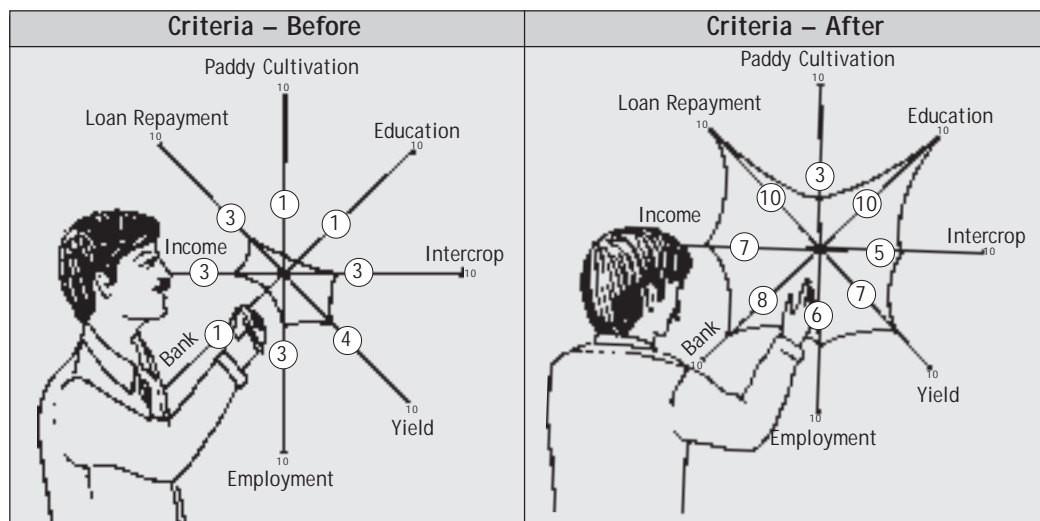
### ***Evaluating changes due to programme interventions using spider web diagrams***

In 2005, the organisation conducted an evaluation exercise with participants from the three programme villages. This exercise was done to identify the kind of indicators/criteria that can be used to monitor change over the project period. This would present a 'before' and 'after' project situation. All the participants actively participated to indicate the impact due to the programme interventions using a 1–10 scale.

The spider web indicated the impact of the programme in the three villages. The important and noteworthy change is that all children are going to school. Participants tried to quantify some



**Spider diagrams showing the criteria identified to depict change by the participants and their rating**



of the other changes. They estimated that about 50% of the farmers are practicing intercropping methods. Yield levels have improved from 4 bags to 7 bags per acre. Apart from all this, they have introduced groundnut for cultivation; this was not grown earlier. Employment generation on the farm has doubled from an earlier 3 months to the present 6 months. Income level was also reported to have more than doubled, from the land holdings. Besides, the 100 per cent loan repayment by the tribal people has resulted in improved linkages with the banks. Bank transactions have also shown a drastic increase in the last two years.

*“Bunding has helped us in reducing soil erosion and bringing land back under regular cultivation.”*  
– M Kuppu

*“We have been able to get more income from land as we are growing more than two crops in a year after bunding.”* – Krishnamurthy and Vellaian

*“We are growing many other crops along with Samai (as mixed crop) from last 3 years. We are getting good income from the mixed crops and vegetables.”* – M Saroja

**Suggestions on the method**

The spider web diagram is a relatively quick and easy tool for comparative impact assessment, providing a visual result to which participants can readily relate. However, it is not so suitable for quantitative estimates, which participants in any case found difficult to judge.



*A village scene in the Javadhu hills*

### 3. Evaluating village changes



#### 3.1. Participatory resource mapping: the method

##### *Materials Needed*

- local material (stones, sticks, leaves, seeds), preferably of different colours, to depict different resources
  - coloured chalk or powder
- large sheets of papers, cards and coloured markers
  - notebook.

This method is perhaps the most widely used and popular of PRA tools – particularly for natural resource management programmes. The idea is that a group of participants draw a map of their village (or whatever area is decided), depicting important resources and places; how the area is represented is interesting in itself, as generally aspects of greater importance are portrayed more prominently. Participatory maps are thus not always drawn to scale, although if participants are asked to do this (and especially if they are already familiar with maps as a concept), they may produce maps that are quite accurate in scale. These maps may be used for participatory planning, monitoring and evaluation purposes, if changes are recorded on it on a regular and participatory manner. This may be done on the same map, but is usually better done by overlaying an updated version (tracing paper may be used for this), or simply asking participants to draw new maps at certain time intervals and comparing the results.

##### *Steps in participatory mapping*

1. Organise the group of participants from the village concerned – ideally the group should comprise both men and women from all age groups.
2. Select a large ground/area for the map to be made. This is usually done using local materials of sticks, stones, *rangoli powder*, chalk, seeds, etc. This is better, as it allows for mistakes and corrections to be made by the participants. If the people are comfortable with writing, it can also be done on large sheets of paper, using colour markers. If done on the ground, the map has to be copied on a paper for documentation.
3. Explain to the participants the purpose of map making. Depending on the exact aim, they may be asked to mark certain features (such as where they take cows for grazing; from where they bring fuelwood, etc), or they may be asked simply to draw the area in question and mark on what they consider to be important features.

4. Facilitate the participants to ensure that everyone participates, without a few dominating. It may in fact be necessary to have different groups – split for example on gender lines – to ensure full participation.
5. Discuss the issues emerging from the map, depending on the project interventions (for example, which are sloping, degraded lands, which are the areas where water is abundant, etc).
6. Take extensive notes during the discussions, which will be an addendum to the map. If the map is made on the ground, it will be necessary to copy it on to a large sheet of paper at the end of the exercise. It may also be captured in photographic form.

### 3.2. Participatory resource mapping in practice

#### *Vikasana, Tarikere, Karnataka*

Vikasana, a non-governmental organisation in Tarikere taluk of Chikmagalur district works with small and marginal resource poor farmers. Tarikere Taluk lies in a rainfall shadow, with average rainfall some 400 mm/annum; in the years 2002–2004 it was closer to 200 mm/annum. The NGO focuses its activities in a total of 115 villages in Tarikere taluk, organised into 6 clusters.

Vikasana has been a partner of the Programme since its inception. Watershed based soil and water conservation, management and utilisation related interventions have been supported intensively in three villages, which now serve as examples to others in the area. The area treated covers some 555 acres – both private land as well as common property resources. The representatives who participated in the PME exercise belong to the project villages of Bhoothanahalli and Arishinighatta. These farmers have participated in a variety of capacity building events over the period of project implementation and now have a thorough knowledge of conservation, management and utilisation of soil and water resources.

Vikasana has used participatory mapping quite widely as a planning tool when beginning interventions in a village. Thus many villagers are familiar with the method. In this case, it was decided that rather than refer back to past maps, villagers would draw a map of their village showing the pre-project situation, and then mark over the current situation. This would be used to stimulate discussions on overall changes that had taken place.

A group of key informants from two programme-supported villages – persons who have been present in the village over the time of the interventions – came together. They discussed the social, economical, education and environmental situations of the village before project intervention in 1999 – and in particular issues related to land, water, vegetation and community development aspects. To map the change after the project period the gathering was divided into 2 groups based on the villages to which they belong. One group numbered 21 participants (including 4 NGO staff); the other numbered 13 (again including 4 NGO staff). In both cases the groups were of mixed



*Vikasana adopts a watershed approach to soil and water conservation*

gender; the relatively large number of NGO staff was because the exercise partly served as a 'refresher' training; they acted as observers and facilitators rather than map drawers.

### ***Participatory mapping of the village prior to Programme intervention***

Participants in the two groups discussed together, and then began drawing the map on the ground, using different colours mixed with sand. They first mapped boundaries, land marks, water source of streams, tanks and bore wells, vegetation, forest and waste lands. Houses, school, temples and roads were then also marked. Key persons (slightly older) in the group recalled how life had been before the project period.



*Stones, twigs and coloured powders were used in creating the maps*

Eshwarapp from Arishinaghatta and Rudamma from Boothanhalli explained the situation of their respective villages. They covered social aspects as well as those related to natural resources using the map. They also highlighted that there was no community organisation in the village, no SHGs, no federation and no watershed committee, no community hall. They commented that child labour and child marriage had been common, and gender discrimination prevailed. No action had been taken to conserve soil and water, and soil erosion was prevalent; one tank had completely silted up. Farmers used more chemical fertilisers and had given up the use of organic manure composting methods. There were a lot of monoculture practices adopted in farming. An additional comment was that near one particular temple, the Ranganatha temple, there had been a good forest that had degraded due to it being used for grazing. The people had not thought of promoting a plantation there.

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*"[In those days] Women were not involved in any decision-making, and were not going outside the village." – Lakshamma, Arishinaghatta*

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### ***Participatory mapping of the village after Programme intervention***

The next step was to mark the post project changes on the same map. The people marked the newly made bunds and bund plantings, farm ponds, *nala* bunds, check dams, gully plugs, vegetative checks, afforestation at waste lands and degraded forest lands. Promotion of organic manure units, vermi-composting units and compost units was also marked. Road formation, community hall construction, community bullock cart and mobilisation of government resources for road and water supplies, organised community with SHGs, and federations were marked with colour, sticks, stones, twigs and leaves.

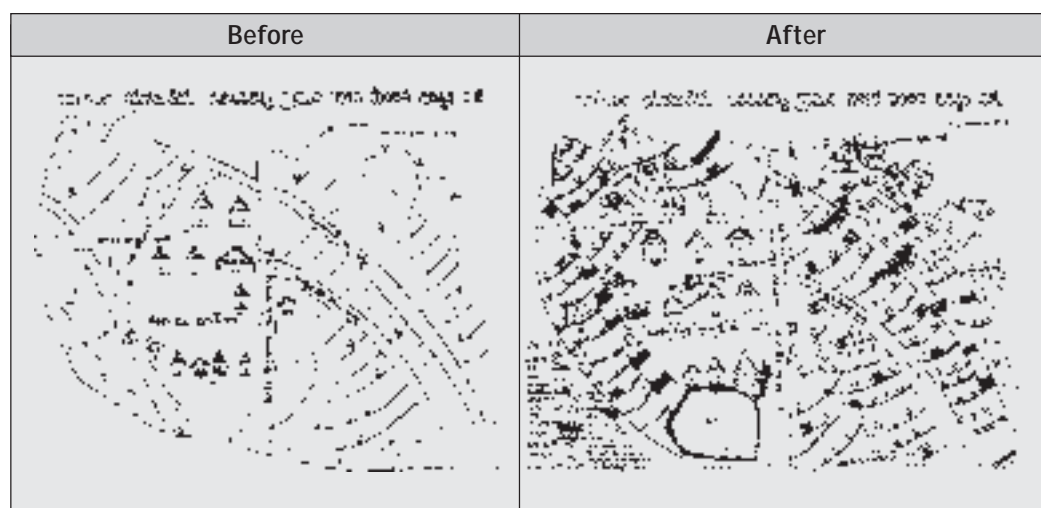
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*"Now, women and men are participating equally in all family and village development aspects. There are 18 SHGs and one watershed committee in each of the villages, all of which are actively functioning." – Shivamma, Arishnaghatta*

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Shivamma from Arishnaghatta and Eshwarappa from Boothanahalli described the current social, economical, environmental and political changed scenario through the maps.

## Maps produced in the participatory exercise in Arishinaghatta village



They spoke of how their lands have been completely treated for soil and moisture conservation – activities including compost pits, silt application, horticulture and tree planting along bunds. People have become organised in SHGs, and SHG federations and committees. They are now saving money, and getting loans from SHGs and government schemes. They are using these loans for agriculture development and income generation activities like sheep and goat rearing, dairy and poultry. It was also said that more children are going to school, and child labour and child marriage have ceased.

In the case of village Arishnaghata, a list of specific changes was made, as detailed in the table below.

The mapping exercise served to heighten awareness amongst the participants on all the changes that have taken place, summing up these as follows:

- increased organisation within the community
- changed attitudes – greater gender awareness and equality

### List of changes in Arishinaghatta village, as identified by participants in the mapping exercise

Resources at the beginning of the project	Resources after the implementation of the project
<ul style="list-style-type: none"> <li>– Severe soil erosion on farm lands and common property</li> <li>– No trees in the forest area</li> <li>– No farm ponds on farm land</li> <li>– No check dams</li> <li>– Very few horticultural trees</li> <li>– Very few bore wells</li> <li>– No initiatives to recharge ground water</li> <li>– Less/no practice of inter/mixed cropping</li> <li>– Less livestock population</li> <li>– More migration</li> <li>– Lack of people's organisation at village level</li> </ul>	<ul style="list-style-type: none"> <li>– Increased fertility of lands</li> <li>– Development of forest in 30 acres area</li> <li>– 25 farm ponds have been constituted</li> <li>– 1 check dam is built</li> <li>– 42 compost units are functioning</li> <li>– Tremendous increase in fruit crops</li> <li>– Cross-bred livestock have come to villages; overall increase in livestock numbers</li> <li>– SHGs and Watershed Management Committees are functioning</li> <li>– Reduced migration</li> <li>– System of intercropping/mixed cropping has been re-introduced.</li> </ul>

- well developed savings mentality in the community
- increased conservation and protection of soil and water resources
- increased soil fertility and ground water level
- increased income generating activities
- increased number of livestock
- more networking and linkages with government bodies and local institutions.



*Finishing touches are made to the nearly completed map*

Perhaps most importantly, the exercise served to stimulate thought on how to ensure that all these positive changes continue after Programme withdrawal. In this, the role of the SHGs and Watershed Committees was recognised as crucial.

### ***Suggestions on the method***

Although a participatory mapping exercise had been conducted in the village when programme activities had begun, a different group had been involved in doing it. The facilitators therefore felt it more appropriate to do the exercise by comparing 'before' and 'after' with the group who was present. Where possible, the ideal scenario would really be to try to convene the same group who had participated the first time, and thus compare what they had recorded at the time, without being influenced by hindsight.

Participatory mapping is an easy, visually interesting and generally enjoyable tool. The risk is that it becomes simplistic, if not facilitated well. For bringing out a variety of information, it is best to involve a group of 10 to 15 key informants; a few may take the lead in drawing and marking, but others should be encouraged to take turns and bring in corrections or other suggestions. Gender differences in perceptions are quite likely, so this must either be carefully facilitated in a mixed group – or separate maps drawn by men and women. Similarly, facilitators should seek to include the different perceptions of people of different castes, class, and ages.

Overall, participatory mapping is a good way to begin – whether planning or monitoring or evaluating – but for more quantitative and qualitative information, it is best combined with other methods.



#### 4.1. Photographic comparisons: the method

##### *Materials Needed*

- camera
- enlarged photographs
- marker pens and large sheets of paper
- GPS (optional).

Photographic comparison is a simple way to stimulate community discussions on changes in a particular geographical area over a period of time. Such comparisons can be used to consider changes in land use, land cover, land form and water bodies. Photographs can be used to track any major physical changes, but less readily any changes related to people and institutions, particularly with regard to attitudes and approaches. Fully capturing social change requires supplementary information collected through other means, such as group discussions.

##### *Steps to conduct photographic comparisons:*

1. Select various locations for taking the photographs within, or giving a view of, the project area. The spots need to be fixed locations such as a rock, mountain top, a big tree or any other location that will not change over the project period. This place can also be marked with a GPS for its exact location; if many spots are chosen, a system of numbering could be introduced.
2. The project area has to be photographed before the intervention is made. Different photographs from different points may be made to capture the entire scene. The photographs should be clearly named, giving location and date, for future reference.
3. For the purpose of monitoring, the area can be photographed from the same locations at significant time slots during the project period. Care should be taken that the photos are shot during the same month/season or preferably the same date in successive years. This will reduce any seasonal errors.
4. Photographs of the project area from the same points should then be taken at the end of the project period.
5. The 'before' and 'after' photographs can then be compared with members of the community, who can identify the changes. A discussion is thus stimulated, which needs to be recorded in detail.

## 4.1. Photographic comparisons in practice

### *Rural Welfare Trust, Santibastwad, Karnataka*

Rural Welfare Trust (RWT), Santibastwad works with small, marginal and resource poor farmers belonging to backward classes (including nomadic groups such as Gowlis) in Belgaum district of Karnataka. RWT has been a partner of SDC-IC since 2000. Watershed based natural resource management with a focus on conservation, utilisation and management of soil and water resources in rainfed areas have been the important activities of RWT. These interventions have resulted in improved management of these natural resources and in enhanced productivity from farmlands.

Rural Welfare Trust has been systematic in documenting project activities and changes through various written and photo documents. At the end of the project, it was possible to make a clear distinction from the benchmark situation. The community has been using these photo documents to compare and illustrate the situation before and after the project implementation.



*RWT works with small, marginal and resource poor farmers (including Gowlis)*

The tool was preliminarily discussed with the participating team of Rural Welfare Trust and the members of the community who participated in the exercise. The exercise was undertaken in one of the project villages, Teerthakunde, with representatives from other villages also participating. The facilitator initiated the discussions on the photographic documents taken before project interventions. The groups made close observations on the photographs,

discussed what they perceived, and then made a list of key features. These features were discussed in depth; most of them related to the lack of soil and moisture conservation features and lack of crops and vegetation.

Having done this, the group was presented with photographs taken recently, after the project intervention. The participants observed and identified the changes that have occurred, and listed them out. A group discussion on the results was then facilitated.

### **Results**

The main observations made by the community members on the pre-project photographs are as follows:

- lack of bunding or poor quality traditional bunds on the farm land, occupying a large portion of the land
- some evidence of soil erosion
- little vegetation on the bunds
- very few perennial trees on the farm, and no trees of commercial value/producing fruit
- little grass on the bunds; participants noted that this was natural grass, not planted
- no farm ponds on the farmland
- no vegetable crops grown.



Turning to the post-project photographs, the community members observed the following:

- farm bunds systematically laid out; narrower, occupying a lesser portion of the farm land
- reduced soil erosion on farm lands, although erosion is still apparent on the *nalas* (checked to some extent by planted bamboo and other vegetation)
- much vegetation on the bunds
- many perennial trees of horticultural and commercial value (particularly cashew) planted on the bunds
- plenty of grass planted on the bunds (which they pointed out gives good fodder to animals)
- farm ponds have changed the outlook of the farms; they added from their own knowledge that some of the farm ponds have become perennial wells.
- farmers have started different nurseries on the farm land and are also growing vegetables with the water available; the photographs depicted people working in the nurseries.

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*"It is easy and simple method to compare the situation before and after implementation." – Woman farmer from Teerthakunde*

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### **Suggestions on the method**

The discussions on the physical changes in the landscape could have been used to stimulate a more general discussion on the social changes in the village, but this was not done due to time constraints.

The major limitation with the method was to identify photographs which represent exactly the same area; this was particularly so, given the changes that have occurred. Although the photographs had been deliberately taken to document "before" and "after" situations, it was realised that this requires more systematic planning from the beginning. In addition to photographs being taken from exactly the same spot at regular intervals, ideally they should be taken

- at exactly the same time of year
- facing exactly the same direction
- at the same time of day.

For this exercise to be successful, it is better to include community members who were present in the area when the original photos were taken i.e from the start of the project, so that they have a comparative perspective. Two participants who did not belong to the village, but who joined in the exercise found it difficult to interpret the earlier photographs as being of the same place!

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*"Everything is visible in front of our eyes. By seeing this one can make out what has happened." – Male farmer from Teerthakunde*

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In this case, RWT staff members took the photographs that were used in the exercise. An innovative and somewhat different method of using photographs is to provide a camera to a variety of community members (preferably young and old, men and women), instruct them in its use if this is necessary, and ask them to take pictures. This can be repeated at intervals over the period of an intervention. In this way, photographs can be used to record changes through the eyes of community members.

## 5. Evaluating skill development training



### 5.1. Matrix ranking: the method

#### *Materials Needed*

- large sheets of paper, notebook and coloured pens
- sticks, stones, leaves, seeds, etc. – any material readily available locally that can be used for representation and/or conducting the ranking.

This method is used to elicit the preferences and opinions of participants with regard to a particular subject. In this way participants can share their knowledge/opinions on, for example, different fodder species, crop varieties, credit sources, etc., and develop specific criteria by which to make comparisons. They may then rank the different species/varieties/credit sources (whatever is being assessed), on the basis of the criteria they have chosen. While matrix ranking (first, second, third, etc.) gives an indication of relative preferences, scoring (placing on a scale of 1–10) introduces a greater element of quantification to the preferences.

#### *Steps in conducting a matrix ranking*

1. Organise a meeting at a time when those involved in the issue to be discussed are most readily available. For women, evening meetings may be more convenient than daytime, for example. It is assumed that a need for a PME exercise has already been identified and agreed, along with the issue to be elaborated.
2. Discuss with the participants the attributes of the issue to be ranked. Let us take the example of fodder species. The different attributes of a fodder species (e.g., giving good milk yields; giving high butterfat; eaten by cows/buffaloes/goats by preference, etc.) should be determined. It is easiest if these are positive criteria.
3. Reach agreement on what criteria should be used. Take notes on the reasons for preferences discussed by the participants.
4. Facilitate a decision on whether to conduct the ranking individually or as a group/small groups. The participants should be comfortable about participating, and able to discuss the issues freely and express their opinion.
5. Prepare the matrix on a large paper or drawn with locally available material (a stick/chalk) on the ground. If the participants are not familiar with the written language, use graphic representation of the criteria. Ranking/scoring can be done using stones, grains or any other locally available material. Participants often feel more comfortable if they can change their minds; from this point of view, using stones or similar material is better than marking scores with pens.

6. Facilitate the ranking/scoring, ensuring full discussion of the reasons for the different scores.
7. If the exercise is done in different groups, consolidate the ranking/scoring. Analyse and discuss the findings in the group, with the reasons given for a certain preference.

## 5.2. A matrix ranking in practice

### ***Rural Education Society, Ghataprabha, Karnataka***

Rural Education Society, Ghataprabha works with shepherd communities (Kurubas, a traditionally nomadic, marginalised community) in Belgaum district of Karnataka. The NGO has been a partner of the Programme since 2000, working in a total of 5 villages. Soil and water conservation based land development and shepherds development oriented wool based activities are major activities of this NGO.

This project has also provided capacity building inputs with special focus on women. The shepherd families reported that the intervention has brought them closer together, through the intensive time that they shared together in the training. Traditionally, the shepherd women support the men in weaving. They use an improved method of spinning the wool, using a pedaled *charaka* (spinning wheel), and then the men weave blankets using a traditional loom. The project aimed at enhancing the knowledge and skills of these women by training them in modern wool processing techniques over a period of six months. The training was conducted separately in each village, and the timing was adapted to the request of the families. It entailed several hours every morning, six days a week (with exceptions for local festivals, etc.).

The village level resource persons employed by the NGO played a key role in planning, conducting and coordinating the training programme with the help of the resource organisation. Training the women was a challenging task, most of them lacking confidence at the beginning, and doubting whether the training would bring them any benefits. After completion of the training, a participatory impact assessment of the training was done.

### ***Skill development training for shepherd women***

This exercise was organised in one village, Karoshi, to which representatives from two other villages (Yadgud and Bambalwad) were also invited. The number of participants from all three villages was seventeen. The exercise aimed at evaluating the impact of skill development training for the shepherd women.



*Women work together in preparing wool for spinning*

The team of RES first discussed the tool – how it should be introduced, its applications, steps in using the method, and advantages and disadvantages.

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*Ideally, the criteria should be developed at the time of planning an intervention, and then used to monitor and evaluate what happens. In this case, the fact that the criteria were only developed after the event means that the depth of trainee participation in the whole evaluation process was somewhat limited. Nevertheless, it gave them the opportunity to provide a feedback on the training, what they had learned, and what difficulties they had faced. For example, had the matter of difficulties faced been addressed at the beginning, some of those very difficulties might have been avoided. For future trainings, RES staff may incorporate a PME process from the start.*

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The participants showed immense interest in the overall preparation of the exercise and gathered all one material required for the exercise. The facilitators initiated the discussion on the topic and divided the exercise into four parts:

- major learnings from the training
- period, participation and training methodology adopted in the training
- benefits gained from the training
- difficulties faced during the training.

Following these discussions, the facilitators introduced the idea of criteria for evaluating the training. Participants listed various criteria; these were further discussed in depth, and a number of important ones were identified by group consensus. The participants ranked the criteria and gave a score in the range of 1 (lowest) to 4 (highest) using seeds to give their scores. The findings were listed for further reflection. Any points that were not clear were then discussed and clarified with the participants.

In some situations, community members may be most comfortable with ranking, rather than assigning specific numerical values (scoring). Pair-wise ranking (comparing two attributes and placing one above another) may be particularly easily understood. However, in other situations – as in this case – people may be more comfortable with a system of numerical scoring. The important thing is for the facilitator to ensure that everyone understands and feels at ease with the method used.

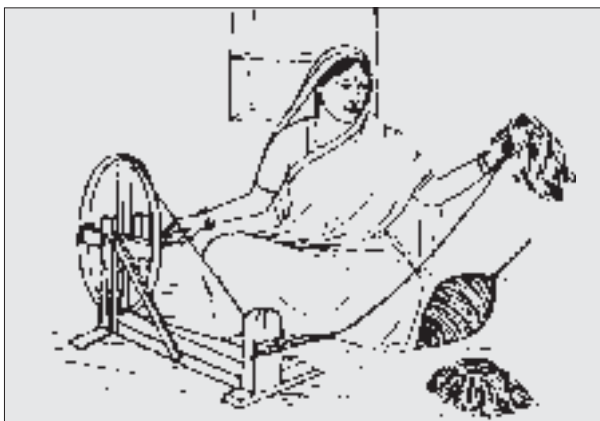
The majority of the women rated all the lessons learned with the highest score (4); relatively few gave lower scores, ranging from 1–3. The main message from the evaluation was clearly that the majority of the trainees gained good skills in modern spinning, as well as other skills such as marketing, *charaka* repair, etc.

## Results

The results of the exercise are given below:

Table 1: Criteria and ranking of major skills learned in the training			
Score of 0 to 4			
Major skills learned			
Sl. No.	Criteria	Total Score	Ranking
1.	Complete understanding of <i>charaka</i> and its usage	64	1
2.	Enhanced knowledge of modern spinning	56	4
3.	Repairing the <i>charaka</i>	53	5
4.	Skill of peddling <i>charaka</i> (spinning wheel)	60	3
5.	Skill of tightening/loosening the wool thread during spinning	63	2
6.	Way for enhancing income	63	2
7.	Method for improving quality of the blanket	64	1
8.	Way of increasing savings	64	1
9.	Way of enhancing organisational power	64	1
10.	Marketing skills	63	2
11.	Learned how to extend timely assistance for the members of the <i>sangha</i>	64	1

The fact that the women were all very positive about the training may in part be a reflection of a wish to appear fully appreciative at the end of the activity. Had monitoring and evaluation been introduced right from the beginning, with opportunities to change things during the course of the training, they might have felt more comfortable in pointing out any difficulties or possibilities for improvement.



When asked about the period of the training, out of seventeen participants, fifteen participants said that the duration of the training programme was ideal and two felt that it was too long; none felt that it had been too short.

*"We would not have learnt it so well if the training period were less than six months." – Tayawwa, Yadgood village*

Ten out of seventeen women ranked the participation of the trainers to have been 'ideal'; the others felt that their input had been even more than that required. Similar scores were also given for the training methodology.

As may be seen, the majority of the participants said that they have derived particular benefits from the training in the form of increased production of wool products, skill development, and

Table 2: Criteria and scoring to evaluate the benefits of the training			
Score of 0 to 4			
Benefits gained from the training			
Sl. No.	Criteria	Total Score	Ranking
1.	Art of using the <i>charaka</i>	60	3
2.	Less health hazards	62	2
3.	Increased spinning of wool (1/2 to 1 ½ kg)	59	4
4.	Increased production of blankets (from 1 per week to 3 per week)	63	1

Table 3: The criteria and score to assess the difficulties faced during the training			
Score of 0 to 4			
Difficulties faced during the training			
Sl. No.	Criteria	Total Score	Ranking
1.	Increased workload (pressure)	51	1
2.	Difficulties in time keeping	28	3
3.	Cooperation at household	39	2
4.	Difficulties in attending agriculture activities	21	4
5.	Taking care of children	14	5



reduced possibilities of health hazards. The additional income gained from increased production was clearly appreciated.

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*“We are selling at least three blankets every week; earlier it was only one. This has resulted in increased savings and hence I could buy some gold for myself.” – Woman participant from Bambalwad village.*

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With regard to difficulties faced, it was particularly women from nuclear families (generally fairly young women, with quite young children and thus no support from daughters or daughters-in-law) who said that they had experienced an increased workload in trying to balance the demands of agriculture and child care against participation in the training. By comparison, women from joint families had experienced fewer problems in making time for the training, due to broader support.

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*One aspect that was highlighted in discussions was that the training had at first been resisted by some of the men, who felt that it was of a very long duration and would take too much of the womens' time. However, as the training progressed the men saw the advantages and started helping the women in their domestic activities – in looking after the children, and even helping with preparing meals – so that they could follow the training.*

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### **Suggestions on the method**

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*“Facilitating the women to arrive at their criteria to evaluate the impact was a fascinating and enlightening experience. Some of the criteria were not even thought of by the trainers. So if the participants do not have enough time and space to explore and come up with their own criteria, the chances of missing their realities is very high.” – Ashok Alur, former IC NGO Programme Deputy Coordinator*

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Some of the criteria identified by the participants were unexpected. For example, the facilitators had not expected the participants to be so enthusiastic about *charaka* repair; they had thought that the women would make use of service providers. Yet, in fact, they were happy to be self-sufficient in maintenance matters.

While working in a large group, care should be taken that there is no dominance by a few individuals, which may result in large variation in ranking. If the number of participants is large, it is better to work in smaller groups (in this case two groups were formed – the facilitators ensuring that the more vocal participants were spread between the two groups), and arrive at comparative perspectives.

The scores in matrix method are best given with stones, seeds, pebbles, etc., particularly when working with participants who are not literate. The main issue here is flexibility. An advantage of using seeds and stones is that it allows the participants to modify the scores easily, after further reflection. Scoring in writing tends to be perceived as fixed, once put on paper, even if it is realised that the rank/score should be modified.



## 6.1. Time lines: the method

### *Material Needed*

- Large sheets of paper and cards, coloured pens, markers, etc.
- Sticks, stones, leaves, seeds, etc. – any material readily available locally that can be used for representation
- Notebook to record notes from the meeting.

A time line helps one understand the history of the village, community or programme. It is used to trace the chronology of developments, which can be marked by landmark events that many people remember and know to have taken place at a particular time – e.g., year of major flood, year of solar eclipse, outbreak of epidemic, etc. With reference to such basic information, other events can be filled in to give a complete historical analysis.

A time line can be used to gain a historical perspective and to compare changes over a considerable period of time, with various factors being documented. It can also be used to compare a particular 'before and after' situation, as the following case study illustrates. Here, food habits are examined, with a comparison between only two points in time. This is then a tool for participatory evaluation.

### *Steps in conducting a time line*

1. Call for a village meeting at a suitable time of day and season to assure the participation of old and young people. As may be expected, older persons tend to recall the past better, while the younger ones are more accurate with the recent past. Care should also be taken to include both men and women, as each recall differently – men tend to relate more to outside influences and women to village/community happenings.
2. Explain the subject of focus to the participants and decide how it will be represented physically (written words, drawing, etc.).
3. Set the time slots (years, months, weeks) according to the need of the exercise. If the people do not know the year as per the English calendar, important events can be recorded according to the local concept of time, which are easy to date later.
4. Facilitate participation from all members and encourage discussion. Ask clarifying questions and details of events as required. Focus can also be shifted to the topic of particular interest – in this case, agriculture.
5. Time lines are usually dominated by written or spoken words, with little scope for graphic representation. However, make sure that the participants are comfortable with the medium used, and include representation with objects or through the use of drawings, if this is appropriate.

6. Analyse the results/findings with the members about the related problems and opportunities.
7. Record the data and analyse it for subsequent use for planning, monitoring or evaluation.

Typically, a timeline data is represented in the following way. (Using a hypothetical example of land use change for adivasi communities in the Nilgiris)

**Hypothetical example of key points in a time line**

Year/Time	Events
When Kamraj was Chief Minister (1965)	Village was given land as a 'joint patta' Every year millet cultivation was doneMillet was given to relatives and friends
1970	Elephants raided the village, loss of life and crops
1972–75	Coffee Board promoted plantations in our village
1988–90	3 successive years of drought
1995	Reinitiated millet cultivation as a community activity, Seeds from Palamalai
.....this can be continued	

**6.2. A simplified time line in practice**

***Keystone Foundation, Kotagiri, Tamil Nadu***

As explained in an earlier chapter, Keystone works on issues of natural resource management, local governance and enterprise development with tribal communities in the Nilgiri hills of Tamil Nadu. Through claiming and developing their traditional lands, the people have gained a deepened sense of tribal identity and self-reliance. This is also linked with the cultivation and conservation of local food crops (millet, pulses and vegetables). Farming their own land has provided an alternative to daily wage labour, and a potentially more varied and nutritious diet. It has also brought tribal families together to claim their rights to land, and make group decisions on its management.

**Tracking changes in diet – food diversity**

This exercise was conducted in one village, Samaigudal, to which representatives from one other nearby village were also called. All these people belonged to the Irula community. The number of villagers attending the meeting, at 30, was quite high – however, the majority of participants were men, with women numbering only six. (It so happened that labour opportunities had been announced that day on the nearby estate – so many women had gone to work). Nevertheless, two separate groups – one of women and one of men – were formed.

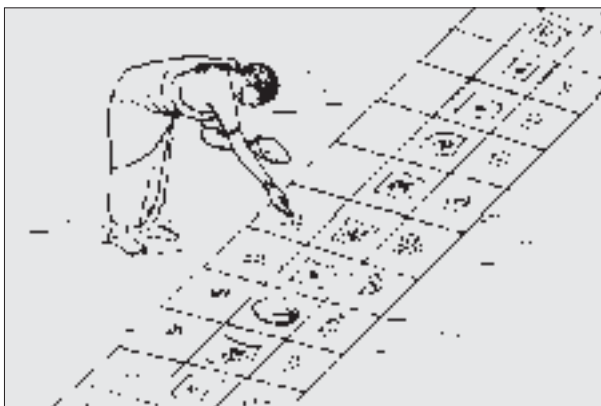


*A community seed bank: conserving local food crops is an important aspect of Keystone's work*

Given their low number, there was a temptation to include the women in one overall group for the discussions. However, it was decided that their views would probably be lost if this was so. Women indeed came out with different ideas from men, and although they sometimes volunteered less information, this could simply have been because they were fewer in number (the men had many more heads to put together). With regards to food habits, they forcefully expressed that they knew better, because it was they who did the cooking.



The tool used was an extremely simple time line – comparing food diversity before project commencement in 2000 and at the end of 2004. As a first exercise, this was essentially a participatory evaluation of how eating patterns have changed over the programme period. However, Keystone intends to continue to gather information in a similar way over the years to come; thus the method will become a monitoring tool (modified in the light of the first experience).



*Simple 'before' and 'after' time line (the food types are placed down the centre of the grid)*

Participants helped in gathering samples of all the different foodstuffs they use – ranging from various leafy vegetables (including those gathered wild) to traditional cultivated vegetables, traditional grains<sup>1</sup>, purchased rice and purchased vegetables. The final collection featured 32 different food items. These were lined up on the ground, and a grid drawn around them for 'before' (left side) and 'after' (right side), as shown in the illustration.

Participants first discussed their eating habits in their two groups. Then one representative of the men and one of the women marked, using beans (maximum score 5, minimum zero), the extent to which a particular foodstuff featured (then) and features (now) in their diet.

### **Results**

The results of the exercise were not what Keystone staff expected, as the participants indicated that overall, the diversity in their diet has decreased, not increased, over the last three years. Both women and men agreed on this.

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*The fact that results were not as expected does not mean that the exercise was 'wrong'. Often more can be learned from the unexpected, and from considering why certain responses were given.*

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The results of this exercise stimulated considerable thought and reflection. The following factors all probably play a part in the apparent decrease in food diversity.

- Despite careful explanations, many participants still tended to take 'before' as many years ago, not just three years back
- This year is the first of good rains during the project period; millet harvests were not so good in the first two years due to drought. Reintroduction of traditional foods takes time – much more than three years
- The availability of highly subsidised rice (only Rs3/kg) in the ration shops does indeed undermine the programme to a certain extent (the market price of millet is some Rs12/kg)
- There could be some hesitance in admitting the eating of traditional grains in a large audience.

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1. For example, *ragi* (finger millet), *samai* (little millet), *tenai* (foxtail millet), *keeral* (amaranthus).

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Two comments recorded at the time are indicative of a misunderstanding of the time period under consideration.

*"In the past we used to pray together, and grow millet together.... Now our community is not so close, people don't come together for such things."* – Older man

*"We go for wage labour and buy [subsidised] rice at the ration shop... How can we eat a variety of foods when this is so? We have become used to eating rice, and it is so simple to cook and cheap."* – Younger man

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### **Suggestions on the method**

Probably the main lesson to be learned from the method was that the respondent's perceptions of the time periods given appeared different from that of the facilitators. Perhaps this could have been made clearer by:

- Adding a third time period of long ago, say the early 1990s, to develop a clearer time line
- Defining the points in time using particular events that everyone in the community remembers.

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*As a method for assessing relatively slow changes such as in natural resource management, time lines are likely to work best when the periods for consideration are defined into some three to five categories, using important events remembered by community members that are clearly within living memory.*

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Comments of Keystone staff were as follows:

*"Maybe the question should have been posed in a different way. We know that in all the tribal settlements they never used to grow millet before 1998 or so, but now millet growing has taken off everywhere. This rice eating habit is like a status thing. People don't like to say that they eat millet. If we talked in a smaller group, maybe the result would be different."* – Robert Leo

*"I liked the group discussions. Everyone had a chance to give their views and did – it was a very free discussion. The finding about food habits was a bit discouraging, that millet consumption has not increased as we thought. But the reasons – what they are saying – are correct."* – Nagaraj

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### 7.1. The H-form: the method

#### *Materials Needed*

- large sheet of paper
- coloured pens/markers for each participant
- many cards or 'post its' for each participant.

This method is particularly designed for monitoring and evaluation of programmes. It was developed in Somalia for assisting local

people to monitor and evaluate local environmental management. The method can be used for developing indicators, evaluating activities, and to facilitate and record interviews with individuals or group discussions. As described below, it is used with literate participants, but it is also possible to use the tool when not everyone is literate (as in the example given later).

#### *Steps in using an H-form*

1. Take a large paper and fold it in half length-wise and then fold it in half width-wise, and then half again width-wise. Unfold the paper and darken the 'H' lines with a pen. Exclude the centre vertical line.
2. Write the question in the top centre of the H-form. This should be simple and lucid. If you have a complicated issue, break it up into many small questions. On the left of the horizontal line of 'H' write 0 representing 'not well' and at the right side 10 representing 'extremely well'.
3. If you are working with a group, ask each individual to place their score along the line between 0–10. Give them each many cards or 'post its' (pieces of paper with a sticky backing) and ask them to write/draw out as many reasons for their score. Only one reason should be written on one card.
4. The participants have to write both positive and negative reasons for their score, which are then collected and pasted on to the respective side, as shown in the figure.
5. The participants are then encouraged to read each other's comments or each participant is made to read out the comments they have written. This is a process of sharing and also to encourage discussion.
6. The next step can be to encourage the group to come out with a consensus group score. Once this is achieved, the group discussion can focus on 'steps ahead', ideas of how to make things better, etc.
7. The results of the exercise can be recorded and analysed further as a step towards monitoring and evaluation and documented in a report.

## 7.2. A modified H-form in practice

### *Grama Vikas, Kolar District, Karnataka*

Grama Vikas has focused its NRM activities supported under the Programme in six villages in Mulbagal taluk, Kolar district. One aim has been the improvement of soil fertility through vermi-compost production and the application of tank silt, thus reducing dependence on external sources of manure/fertilisers. The application of tank silt is widely practised in parts of Karnataka that have been farmed intensively for many generations. Having the highest number of tanks compared to any other district of the State, tank silt is widely available in Kolar district. However, in the more marginal farming areas, tank silt application has not been a regular practice and was viewed as an innovation when suggested to farmers by Grama Vikas. Support was provided through subsidised transportation of the silt; the participants did (or paid for) all the manual work themselves. Selected farmers belonging to SHGs from five out of the six villages covered under the Programme applied varying quantities of silt to their marginal land (which were sandy in texture, possessing low water holding capacity and low fertility/productivity) over the course of three years.



*One aim of Grama Vikas has been the improvement of soil fertility through vermi-compost production*

This case study documents the participatory evaluation of the results of silt application over the three-year period of Programme support for this activity. The farmers first discussed the matter in village-based groups. Then representatives were invited for a meeting at one village, Gandhipura. Reflecting the relatively good educational standards in Kolar district, most of the participants in this exercise were at least functionally literate. Thus

ranking could be done in writing rather than using signs or pictures.

On the day of the exercise, the method was first discussed amongst Grama Vikas staff – taking into account the preliminary feedback that they had received from participants. However, on reaching the field, the method planned had to be modified ‘on the spot’, as many more people came to the meeting than originally anticipated. There were 73 in total.<sup>2</sup>

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*Having to modify plans according to conditions in the field is not unusual – it is important to be flexible. It is also important for facilitators to try to remain neutral, and not influence the response of participants.*

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It is difficult to maintain true participation in large groups, and therefore small group discussions were used as far as possible. This was easily achieved, as the groups formed according to the village – larger ones then splitting further along gender lines, to ensure that the potentially different views of men and women were voiced. The result was two men’s groups, two women’s groups, and three mixed groups.

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2. The free lunch provided by Grama Vikas may have been one attraction, but was considered just compensation for a whole day’s wage labour potentially lost through attending the meeting.

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*As the evaluation criteria had not been identified before the programme commenced, it was inevitable that their definition was influenced by Programme experience. Villagers could readily define important criteria by which they thought the application of silt could be evaluated. Although they concentrated first on positive aspects, when prompted they also suggested negative aspects.*

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Three stages were adopted in the evaluation procedure:

- identification of positive and negative aspects of tank silt application (small group discussions)
- ranking of key criteria for evaluating the programme (plenary, by vote)
- comparison of field condition prior (2000) and after (2004) silt application, and overall scoring of the impact of the programme (separate exercise by women and men, undertaken by village representatives after discussing within their group)

The first two stages are described first, with the results. The next stage and the overall results of evaluation are described afterwards.

### **Positive and negative aspects of tank silt application**

These discussions lasted for an hour in most of the cases; however, some of the groups were faster. Each group identified one person with good literacy skills to record the discussions. The points discussed in each group were read out and reconfirmed by the representative before presentation.

### **Ranking of criteria**

In the plenary, the representative of each group read out their list, and an overall list was thus compiled. Often different groups had the same or very similar criteria, which could be clubbed – nevertheless, the result was a long list of 14 varied criteria. Most related to positive changes; negative aspects of the programme were less readily identified, and amounted to only three.

To reach agreement on the most important criteria in the overall list, a vote was organised by gender. It was suggested to the participants that they should decide on the five most important (positive) aspects on which the programme should be evaluated (the negative ones were clear anyway), and raise their hand when each of these was called out. Two lists with prioritised criteria, separately for men and women, were thus produced.

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*Some people may not have understood that they only had five votes; this could have perhaps been explained more clearly. Furthermore, some participants followed better than others (for example, forgetting to vote when a child was crying and needed attention). This could have been watched more carefully, and a re-count made in case of doubt.*

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*One of the men's groups discusses the criteria for evaluating silt application*

Following this, the lists were compiled to give one list of the most important criteria, agreed by women and men. Six positive criteria stood out as being of greatest importance to everyone. It had been intended to then incorporate these criteria into the H-form scoring exercise. However, it was realised that the exercise was becoming too complicated.

Table showing the consolidated list of advantages/positive aspects of silt application as ranked by men and women participants

Advantages/positive aspects of silt application	Scoring by women	Scoring by men	Overall Scoring	Overall Ranking
1. Improvement in fertility	24	25	49	9
2. Improvement in yield	27	09	36	12
3. <b>Enhanced drought tolerance</b>	34	28	62	<b>1</b>
4. Improvement in quality of produce	28	13	41	11
5. <b>Reduction in weed infestation</b>	34	25	59	<b>2</b>
6. Improvement in soil softness (texture)	28	18	46	10
7. Reduction in non-grain portion of ear	19	14	33	13
8. <b>Improvement in soil moisture retention</b>	33	23	56	<b>6</b>
9. <b>Good crop stand</b>	33	24	57	<b>4</b>
10. Reduction in pest/disease incidence	27	24	51	8
11. <b>Choice of growing different crops (crop diversification)</b>	31	28	59	<b>2</b>
12. Improvement in earthworm activity in soil	11	13	24	14
13. Increased fodder yield	28	27	55	7
14. <b>Enhanced depth of tank and water storage capacity</b>	30	27	57	<b>4</b>

## Results

*It may be seen that participants identified many different results of silt application, most relating to changes in crop production. Participants also made observations on changes in the soil – in moisture retention capacity, texture, earthworm activity, etc. One positive result of the silt application programme had nothing to do with the application itself – but the fact that tank de-silting of course results in increased water storage capacity of the tank.*

*Gender differences in perception and priorities were mainly subtle rather than stark. For women, a reduction in weed infestation after silt application was identified as a particularly positive outcome – as this resulted in less of a workload for them (weeding being mainly a woman's occupation). Men apparently did not attribute great importance to the influence of silt on crop yield; however, this may be deceptive as in fact men focused on more precise definitions of changes due to silt application, and thus did not give much weight to this generalised criterion.*

The negative criteria involved in tank silt application were identified as:

- bullocks and carts not being available when needed
- tractors not being available when needed
- labour supply being limited, and not available when needed

*As the area is only a few hours bus ride from the metropolis of Bangalore, it is easy for villagers to seek wage labour in the city, which is generally more remunerative than agricultural labour. This is a situation-specific issue, but does mean that local labour availability sometimes limits farm activities.*

*One of the men members from Kagginahalli remarked, "Sometimes when we keep all the labour force ready for lifting the silt from the tank, the tractor owner does not turn up, in spite of promising. Then, we have lost that day's labour."*

### Comparison of 2000 versus 2004, and overall evaluation using an H-form

A modified version of an H-form was used to evaluate the silt application programme, comparing the situation in 2000 (prior to programme commencement) with 2004 (after three years of the programme). The question posed was, 'How good is the fertility of your land?' Participants were required to score this on two separate H-forms, one before silt application (2000); and the other, after silt application (2004). Each H-form was constructed by listing the three negative criteria on the left, and the six most important positive criteria on the right – doing this separately for men and women. Then a line was drawn between the negative and positive criteria, along which participants could score their overall rating of soil fertility on a scale of 0 to 10.

As the large number of people present made it difficult to involve everyone directly in the H-form scoring, one woman and one man representative from each village acted on behalf of the others – although they discussed the scores that they should give within their group first, and were observed by everyone in carrying it out. Thus the end product was an H-form for 2000 and 2004 from the men's perspective, and another from the women's perspective.

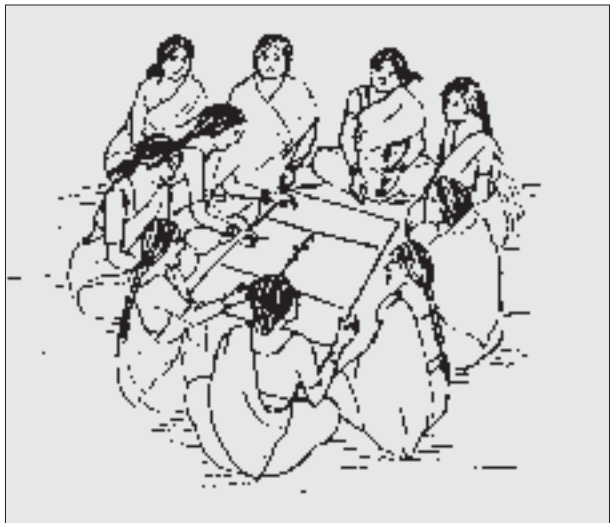
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The H form was developed primarily as a tool for literate people, in which each person contributes his/her positive and negative reasons, and marks an overall score on the 0–10 scale. It is thus a fully democratic exercise. In this case, only the village resource persons did the actual scoring, although the information base had been derived from all participants.

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### Results

When the H-form was drawn, the five men representing the five different villages gave a score ranging from 1–3 for 2000, from which an average score of 2 was reached. The score for the year 2004 ranged from 4–6, with an average score of 4.5. Amongst the five women representatives, most of the women (4 out of 5) gave a score of 1 as an indication of the quality of soil for the year 2000. For the year 2004, the score ranged from 4–6, averaging 5.

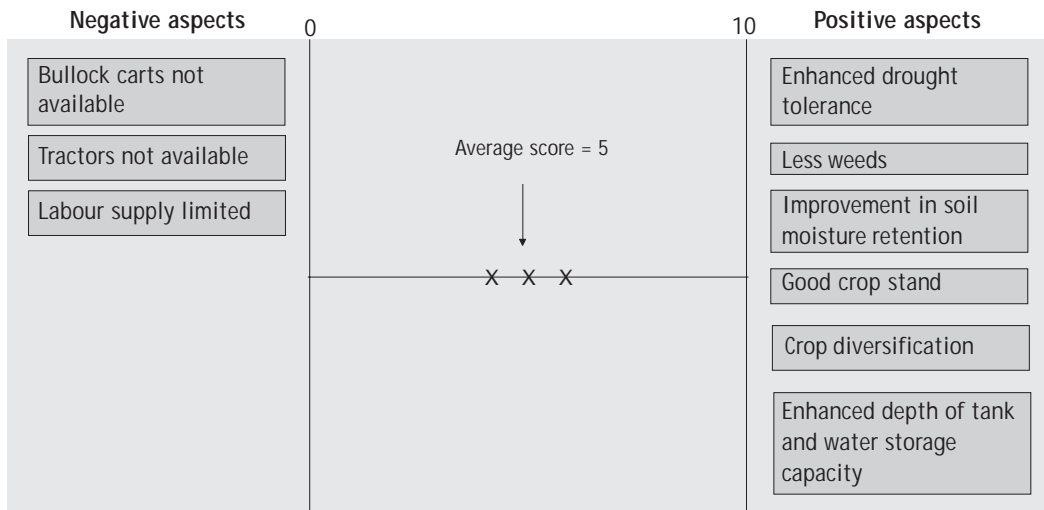


Thus it was concluded that both men and women felt that the silt application programme had resulted in an improvement in the fertility of their land – with women overall seeing a greater change between 2000 and 2004. However, given that a maximum score on the H-form could have been 10, it is clear that the participants still felt dissatisfied with the fertility of their land, and anticipated that further improvements could be made.

In follow-up visits to the field, all the participants said that they would continue to apply silt to their land as far as possible – perhaps not every year, but as far as tractor, cart and labour availability permit, working together to pool resources. This they intend to do even after Programme support is discontinued – an indication of their conviction of the merits of the intervention, and its long-term sustainability.

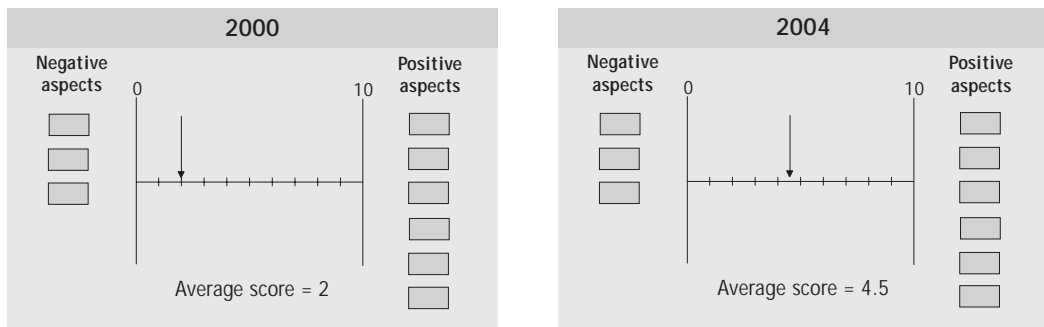
**Diagram showing the results in the women's H-form for 2004 (translated into English)**

How good is the fertility of your land?



**Diagram showing the men's H-form for 2000 and 2004**

How good is the fertility of your land?



**Suggestions on the method**

The whole exercise brought out some useful findings and stimulated a lot of discussion. However, it does not provide an optimal example of the use of an H-form – one important reason being that the large number of people attending the meeting made it difficult to involve everyone directly. This, however, is often a practical reality. What the case study does show is how a tool may be adapted to field circumstances. An H-form is probably best used where the number of persons is less (perhaps no more than 20 or so), and everyone is confident to contribute their ideas individually. In this respect, being able to write is not necessarily required, although it does speeden the process.

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*The H-form, as originally conceived, has the advantages of simplicity and full representation (everyone making their score separately). These were slightly lost in this case, even though the village representatives who did the scoring consulted with all participants first.*

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### 8.1. Well-being ranking: the method

#### *Materials needed*

- large sheets of paper
- coloured pens and markers
- notebook
- local material (sticks, stones, etc.) available in the village

When conducted sensitively, this exercise can provide insights to both outsiders and village members on household differences within the community. Well being ranking is an extension of the concept of wealth ranking; the latter largely relates to income and physical assets, whilst 'well-being' also includes more over-arching issues like health, access to basic needs, indebtedness, etc. Well-being rankings may be used in the process of planning, as a means of discussing differences between families in a village and identifying specific target groups in a participatory manner. They may also be used to explore, monitor and evaluate the impacts of any intervention in terms of poverty alleviation or changes in perceived well-being. The exercise can be conducted separately with a number of key individuals, or in a group.

Wealth and well-being rankings are usually only possible once a good level of rapport has been established with the community members. If done in haste, they are likely to produce inaccurate results. People naturally always consider why outsiders are asking questions. They may think it appropriate to portray many households as being poorer than they really are if they understand that benefits are likely to be given to poorer households. Alternatively, they may have a sense of pride and wish to portray their village in a 'rosy' light, and thus not admit to certain pressing problems.

#### *Steps in conducting a well-being exercise*

1. Facilitate a discussion on the concept of well-being with the participants, asking them to define it in local terms. What are the attributes that make up well-being, in their eyes?
2. Having reached an agreed set of local criteria to define well-being, introduce the concept of well-being ranking, and the reasons for conducting it in this particular case.
3. Ask the participants to consider the households in their village, and how they might be grouped in terms of well-being. This should be done in a non-personal, non-threatening manner, seeking general groupings, rather than the identification of individual households and then classifying them.
4. Ranking may be done with seeds, stones, or grains – with participants deciding on the number of households to be placed in each pile, and having the possibility to change their

minds as they go along – creating new piles, or reallocating some households to different groups, as they feel fit.

5. If individuals conducted the ranking separately, they should then share their results with the others. The aim should be to reach a collective result, through discussions.

Where people are at ease with classifying individual households according to their well-being status, this may be a logical next step – but only if there is genuine openness to doing so.



*A good harvest. Prakruthi is promoting sustainable agricultural practices*

## 8.2. A well-being ranking in practice, as part of an evaluation

### *Prakruthi, Kolar District, Karnataka*

Prakruthi, an NGO working in Mulbagal taluk of Kolar district, has been a partner since the beginning of the Programme in 1996, working in ten villages. Under the Programme, it began promoting sustainable NRM practices through local community-based organisations. Within each village in which it is working, Prakruthi has supported the establishment of Self Help Groups (SHGs), who are organised into clusters. All interventions are discussed, planned and decided at cluster level with facilitation from the NGO. Prakruthi has given special emphasis to the conservation, management and utilisation of water in a judicious way.

Construction of farm ponds is one important activity – both community ponds, and private ponds on the lands of small marginal farmers. This example concerns the renovation of a small community farm pond called 'Krishnamma kunte' in Arahalli village. This village comprises some 80 households. Pond renovation comprised de-silting, followed by the construction of a waste weir. The activity was strongly supported by two women's SHGs that have been promoted by Prakruthi; a committee for managing the pond has also been established.

#### **Method used**

A group of outsiders (field workers from other areas) visited the community with members of Prakruthi staff, wishing to learn about the effect that the pond renovation has had on the



community. This was thus an evaluation exercise (although if repeated at regular intervals, it could be turned into a monitoring tool). A meeting attended by the SHG and Pond Management Committee was held, at which the members explained to the outsiders that everyone in the community had participated in the renovation, contributing according to their means. They further stated that the pond renovation has brought only

benefits to all; there have been no negative effects. As the number of community members present was quite high (about 50), there was of course a tendency for some members to dominate, and it was difficult to ensure that all voices were heard. Ideally, the group should have been split into several smaller groups, but as this would have taken more time than available, it was necessary to continue with the one large group.

To elaborate and seek input from everyone present, the community members were asked to consider the matter in more detail. This was facilitated in a number of steps.

1. What are the benefits now derived from the pond? The participants were asked to list these, and rank them in order of importance
2. How do you define 'well-being'? How do the households in the village vary according to well-being? How can households in the village be grouped?
3. What contributions have been made to the pond renovation by the households in the different well-being categories?
4. Which benefits are enjoyed by which categories of households?

The listing of the benefits entailed a group discussion, facilitated to bring out different opinions. Eventually one group member was asked to write down the benefits mentioned on a large brown sheet (most of those present were functionally literate, so this was a viable method). The benefits were then read out, to see if anyone could add further aspects; the final list was of eight distinct benefits. The facilitator further checked about the negative impacts of the pond renovation, but was again assured there were none.

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*It is common that community members hesitate to express negative comments in public, for fear of causing offence. Whether there are genuinely no problems, or whether people are simply too polite to mention them, can often be ascertained through appropriate, non-threatening questions.*

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The well-being ranking was a new concept to the participants, and took a little time to explain. As the meeting was held under a tamarind tree, tamarind seeds were gathered to represent the 80 households in the village. Time was given for participants to discuss what constituted well-being, and how this varied amongst households within their village. Initially, for example, some ten households were identified as being well off, but on reflection, participants agreed that the sense of well-being amongst them varies – particularly with regard to a reliable water supply, and debts. Indebtedness, at least periodic, was recognised as a fact of life for everyone except those in the highest well-being category.

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*Well-being rankings are potentially sensitive. In this case, the exercise was possible because the NGO staff members were present, and could co-facilitate with someone who was known to the group from a previous visit. It is recommended that a good understanding and rapport is established with a community before conducting a well-being ranking; without this, it is unlikely that reliable information will be gained.*

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*In translating 'well-being' into Kannada, care was taken to suggest this idea without giving respondents precise ideas as to how they should make their categorisations. After discussion, the equivalent of 'rich' was seen as a more appropriate word than 'wealth'.*

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## **Results**

The well-being ranking is shown in the table. It is recognised that this ranking is somewhat generalised (the numbers are too even to be exact), and could be refined through smaller group

**Table showing results of the well-being Arahalli village**

<i>Well-being category</i>	<i>Characteristics</i>	<i>Number of households</i>	<i>SHG members</i>
1. Particularly well	Own a bore well, orchards, tractor. Lend money to others.	5	1
2. Very well	Owned borewells but these have dried up; still have orchards – but now have debts	5	2
3. Well	Comfortable; own orchards, cross bred animals (no bore well). Mainly work on their own fields.	20	10
4. Fairly well	Have no orchards, but own some cross bred animals. Mainly work on their own fields, but also on others. Not enough land for self-sufficiency.	20	15
5. Poor	Have some animals (notably goats). Only have a little land; have to do paid labour.	15	5
6. Very poor	Own no animals or land (or virtually none); purely dependent on paid labour	15	4

exercises. However, it provides a broad picture, endorsed by well over half of all the households in the village. Also, SHG membership – and by implication, participation in the meeting – is spread throughout the different well-being categories.

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*The results of the well-being ranking are broadly what one would expect, with a few households falling into the higher categories, most in a middle category, and quite a number into the poorer categories. Access to water, possession of land and animals, freedom from debts and from any need to do paid labour – all contribute to a sense of well-being. It is important that participants provide their own criteria, but other aspects that might be anticipated include health, opportunities to work as non-manual labour (educational qualifications), contacts outside the village, access to credit, etc.*

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The listing out of the contributions made by households according to well-being ranking indicated that the more well to do households had contributed proportionately more to the pond renovation, through, for example, supplying a tractor for two days, paying a donation of



Rs500, or providing stones. Those in the poorer categories provided a small donation of Rs10-20, and contributed labour to the extent possible. The SHG members all made a particular point of contributing their labour free for five days.

A matrix showing which benefits are enjoyed by which household category indicated that households in the middle level categories seem to have benefited most, although (as the participants had said at the beginning), everyone had received some benefits. The numerical ranking is such that 8 indicates greatest

### Matrix showing the benefits enjoyed by different household categories

Benefit identified	Benefit enjoyed by category of household (well-being ranking)						Ranking of overall importance
	1	2	3	4	5	6	
1 Drinking water for livestock	x	x	x	x	x		8
2 Washing livestock	x	x	x	x	x		7
3 Irrigation purposes					x		6
4 Water for mango orchards	x						1
5 Clothes washing		x	x	x	x	x	2
6 Fisheries rearing			x	x	x	x	3
7 Stimulation of interest in renovating a larger tank	x	x	x	x	x	x	4
8 Nursery raising				x	x	x	5

importance overall (in the eyes of the participants), and 1, least importance. It may be noted that the poorest households do not enjoy what were identified as the two most important benefits – drinking water for, and washing of, livestock – because they have no animals. However, poorer households have gained opportunities for nursery work and fish rearing, have access to water for clothes washing, and like everyone else are looking forward to an unexpected potential side-effect of the pond renovation. The initiative has stimulated interest at Gram Panchayat level in taking up the renovation of a much larger tank, something which would also be to the advantage of the whole village.



*Fish rearing is a potential benefit for poorer households*

### **Suggestions on the method**

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*“By doing this [exercise] we have learned something new about ourselves as a community.”*  
– SHG member

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As a relatively quick, participatory means of evaluating the community pond renovation, this method worked well. Perhaps most importantly, participants said that they themselves had enjoyed the exercise, as it had stimulated them to think about, and gain some different insights into their own community. However, if detailed and accurate information was required, it would be necessary to conduct the exercise with a number of smaller groups, cross-checking the information gained, and ensuring that households with no SHG or Pond Management Committee members were also included.

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*Well-being ranking can give a very accurate picture of village socio-economic groupings, but they are also subject to bias, especially if informants think some benefits might come to those placed in a particular category. It is thus important to cross-check information gained.*

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What can be learned from these different examples? A few key points are outlined briefly in this concluding chapter.

### **PME as an integral part of all community-based interventions**

However interesting a participatory evaluation at the end of a programme might be, without it having been based on a sound system of

participatory monitoring throughout the project intervention, the evaluation in itself is limited. Thus, the first conclusion to draw is that monitoring and evaluation should be made a systematic feature of all interventions, seeking community participation from the outset in defining what should be monitored (indicators); how often and by whom the monitoring should be conducted; how this information will be used, etc.

### **Document unexpected or negative outcomes carefully**

In a number of the examples documented, participants voiced only positive outcomes of the intervention. This may be partly due to a wish not to cause offence, but it may also be a genuine inability at the end of an intervention to identify more negative aspects, given a general feeling that the activities were successful. Yet, often the greatest opportunities to learn arise from unexpected findings. Thus, for example, whilst Keystone was surprised to find that dietary habits had changed less than they expected over the course of project interventions, they could use this finding to stimulate further community discussions and learning.

### **Be flexible in the use of participatory tools**

In a number of the examples given, the partner staff had a certain idea on how to approach an exercise, and when they came to the field, they found that they had to adjust their plans because more people had come than expected, or for other reasons. It is best to conduct participatory exercises in a spirit of flexibility, whilst keeping sight of the information that is required for effective monitoring and/or evaluation.

### **Gender**

In most of the exercises documented, a deliberate effort was made to seek out the views of women and men separately. Generally, however, the outcomes were quite similar, so the overall findings were pooled as one. Sometimes differences of perspective can appear relatively minor, but it is nevertheless important that they are discussed to ensure that any underlying differences are fully explored.

## Capacity building

A participatory approach to monitoring and evaluation requires not only knowledge of tools, but an overall understanding of community dynamics, and aspects such as facilitating the representation of all groups in discussions and decision-making. It also requires, of course, a clear conceptual understanding of what monitoring and evaluation entail. For both NGO staff and community members alike, regular capacity building through trainings, field exposures and learning 'on the job' are thus an essential aspect of promoting PME in particular interventions, and as a part of organisational culture.

As a final word, those reading this document are encouraged to experiment and use different tools in supporting the monitoring and evaluation of development interventions by communities themselves. The references that follow indicate a number of sources of further ideas (in particular, see the PLA notes published by IIED, and Kumar, S. 2002). Finally, please remember – PME is a serious task focused on learning, but it should also be enjoyable!



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<http://www.eldis.org/participation/pme/index.htm>

This website gives separate web pages and links to selected documents on: Background to PME – Concepts, and the different purposes of PME; Who participates and when in PME? Methods, tools and manuals; Indicators; Case studies; Discussion lists and bibliographies.







## NGO PROGRAMME KTN SERIES

This publication arose out of a request from all twelve partners of the SDC-IC NGO Programme Karnataka-Tamil Nadu (hereafter referred to simply as the Programme).

*Participatory Monitoring and Evaluation* documents the field experiences of seven of the partners of the Programme - Grama Vikas and Prakruthi in Kolar District, Rural Education Society (RES) and Rural Welfare Trust (RWT) in Belgaum District, and Vikasana in Chickmangalur District. In Tamil Nadu, cases are drawn from Keystone Foundation (Kotagiri District) and Social Centre of Peoples' Education (SCOPE) Trust, (Thiruvannamalai District).

As part of the Programme's consolidation phase, the partners identified participatory monitoring and evaluation (PME) as a matter on which they would like to work further. Following the outcome from two workshops, considerable field interactions took place, some of which are documented here. A brief introduction to the concept of PME is followed by a variety of 'real life' situations that field practitioners are likely to experience. The examples document work with tribal people and other community groups, including women, who have traditionally been the subject of social discrimination.

This document is mainly intended for field practitioners in rural development, particularly participatory natural resource management.



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