NATURAL RESOURCES SYSTEMS PROGRAMME

PROJECT REPORT[1]

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Annex D
Participatory Monitoring and Evaluation
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Summary.

This annex addresses the objective set by Output 2.3 of the Log Frame; '*Village stakeholders, researchers and target institutions gain new insights ….into… the most appropriate ways of measuring change by all stakeholders',* and describes efforts to respond to a key development component of the project '*the building of capacity to* …(adapt to change)', expressed in the first output. To achieve these, a collaborative process was required to establish an monitoring and evaluation system suitable for all stakeholders, starting at the design and planning stage, with a participatory approach to the identification of indicators, their trial, critical review and amendment, to their final evaluation and selection for continued use.

After a non-participative start to the research process (Family Information Survey) the UK team realised that considerable preparation was needed to set up a participatory monitoring and evaluation system which was to be managed and implemented by people with little or no experience in this approach. Two members of the partner NGOs were sent on a three month training course in the Phillipines, while the UK team members compiled literature and a discussion document with materials introducing key concepts ready for a two week research planning meeting. In this meeting research questions were outlined and the appropriate approaches for addressing them discussed including various aspects of incorporating participation into monitoring and evaluation.

Although the principles of Participation in monitoring and evaluation were better established after this, there was still a lack of focus on developing a participatory approach. The team concentrated on the need to answer the research questions identified using a pre-planned approach, although it was more objective focused than the FIS, and more cost-effective. After pilot testing of this approach, they realised the persistent low levels of participation, and decided to re-focus. The often repeated sequence of trial, review and reflection on how to maximise the level of participation has resulted in a tiered M&E system with varying levels of participation, many different methods and a team a great deal more experienced in the establishment of PM&E than at the start of the programme.

The results from data collected through the participatory monitoring methods are displayed in narratives, annotated diagrammes, graphs and frequency tables and are condensed in two tables, one for NRM strategies and one for Livelihood strategies, on page 61 and 63.

The results from the PM&E for all the NR strategies covered, indicated some benefit having arisen for the participants, but the information available from the VFC and Livestock results are insufficient. Vermi-culture, Agro-forestry and Tank and bund restoration results gave clear, valid and believable information that show their immediate outcomes. Their long term effect is also suggested by the evidence given for changes in attitudes towards future management in respect to the tank repairs and in the confidence of the agro-foresters in the system to the point that 20 have extended the area. .

The results of the PM&E on the two livelihoods focused strategies (SHGs and IGAs) were also positive. The progress with self - development that the SHGs have made in general is clear from the indicators on meetings, savings, addressing officials and participation in decision making, which shows that the process used to establish and develop them was effective. Immediate outcomes in terms of increased number of new IGAs, availability of credit (number of loans) and the means to avoid expensive credit has been shown, although in certain circumstances the value of money lenders has not been entirely replaced.

More interesting analysis of the results to look at who the strategies might benefit more than others will not be possible with this data, as the SHG was the unit of analysis. Many of the indicators *could* have been recorded with household numbers for individuals, so that the data could be analysed by household or SHG. However this was not done as the team felt that this was not the purpose of the PM&E, which was focused on the needs of the primary beneficiaries themselves, and that this question was to have been tackled by separate research procedures (FIS Evaluation, process documentation and other surveys), and that with few exceptions the research questions that the PM&E had planned to address were covered.

The team faced difficulties in overcoming obstacles to establishing participation in M&E. The breakthrough involved realising that at such an early stage of involvement participants need to be able to go through the process using a quick and easy to measure indicator that allows them to see immediate results and to interpret their meaning and significance together in one session. This came too late to make a widespread difference, so that at the end of the project, the establishment of higher levels of participation in M&E needed to achieve increased capacity amongst participants had only just started. If the NGO team members were to continue to work with the SHGs to develop their capacity to monitor and evaluate their activities, then greater skills would be developed in both parties. The potential would be further increased if this were incorporated into the role of the SHG federations.

For assessing the usefulness and sustainability of indicators, the process of scoring each indicator according to certain criteria was a useful way of quickly evaluating them and the way they were measured and for getting some explanation and discussion from the team when an indicator didn't score well. The only indicators showing potential for continued use are the ones which incorporate relevance (to the participants), ease of measurement and ease with which results can be shared (visually displayed) and compared (between individuals, groups or villages), promoting discussion, reflection and learning. The process of interpreting the results is the most important step and where the real *end product* of PM&E is realised. At this point participants can see if the efforts put into M&E have been of value, and this in turn will influence whether the indicators or practice of M&E in general spreads between groups.

1. INTRODUCTION

Objectives, approach and planned activities

Also see Annex C, Chapter 13. Annex D describes the process by which the project addressed the objective set by Output 2.3 of the Log Frame;

> Output 2.3 Village stakeholders, researchers and target institutions gain new insights from the process of implementing action plans in peri-urban areas into… the most appropriate ways of measuring change by all stakeholders.

In order that all stakeholders (primary beneficiaries, researchers and target institutions) gain this insight, the aim was to have as collaborative a process as possible starting at the design and planning stage, with the identification of indicators, their trial, critical review and amendment, to their final evaluation and selection for continued use. The relevant activities are summarised below;

Activities

- Find indicators to measure initial state of and changes in livelihood strategies and the NR management that are simple and believable.
- Monitor changes using these indicators.
- Review indicators and produce amendments where necessary.
- Evaluate indicators for their wider suitability over time and for other locations.
- Disseminate generic lessons and effective recommendations in the light of project findings.

From its inception this project has seen the participation of all the relevant stakeholders as an essential part of an overall strategy designed for promoting people's capacity to adapt to a rapidly a changing environment and to promote policies which enable them to do this.

Starting with the creation of participatory action plans in each of the villages, all interested stakeholders have been involved, and efforts have been made to improve the quality of participation at each stage.

One key development component of the project was 'the building of capacity to …(adapt to change)', expressed in the first output. This requires people to be able to monitor, evaluate and modify their activities and to articulate needs for support from services or policy. This is a distinct objective embedded within the overall research objectives of this project. It helps to understand the different levels of participation needed in M&E activities and to look at the question of who needs what information and what for so that the right stakeholders are involved at the relevant stages in the research process.

This annex describes first the preparation needed for the process of setting up a participatory monitoring and evaluation system, the actual process and its trials and errors and the results from data collection. Finally there is a section on findings,

relating how participatory research efforts contributed to research questions set by the team and capacity building amongst the communities, what were the most effective indicators and why and lessons in general.

2. LITERATURE AND TRAINING PROGRAMMES.

For the preparation of the document 'Materials for discussion, Project R8084 Team Meeting 20th -29th August 2002' a great deal of literature on the subject of monitoring change, particularly with respect to Livelihoods and Natural Resources was reviewed by the relevant members of the UK team. The contribution of this to the way in which participation in the M&E was approached can be seen in that document, (where particularly relevant excerpts were copied into a section called 'Key sheets: examples and concepts', for reference by everybody at the meeting), and also in the follow up 'Summary Report of Project R8084 Team Meeting 20th -29th August 2002', both of which are in the appendices of this report. A distillation of some of these key concepts and their discussion and application in the meetings is given here.

The purpose of participation in monitoring and evaluation: Who participates, when, how and why?

Anticipating the interest of different stakeholders in the research questions and how they might use the information (p.10-12 of Summary Report) helped to understand the objectives of participation of different types of stakeholder, but did not result in their actual participation. It may be our wish to establish as full a level of participation of stakeholders as possible in the monitoring and evaluation of this project, but it may not be theirs. It may also not be feasible.

In a project where there were already 5 different institutes involved in the team itself plus the primary stakeholders, a plan for participation was thought important. A suggested format was given in the Discussion document (p.7).

Monitoring at different levels

What is necessary? Do we or other stakeholders need to monitor progress with implementation (activity levels like attendance, timeliness, how well participants feel it's working)? And / Or do we or other stakeholders need to measure indicators of outcomes, to see if activity is being successful (indicators like change in tree cover, community attitudes). We need to be aware of the level we are monitoring at.

Quantitative and Qualitative indicators and measures

Both have value and a combination should be used, and ways in which qualitative information can be quantified by ranking, scoring and scales. The use of a smiling face chart and voting cards with household numbers was used to illustrate this (p 14), as well as a ladder scale for well-being (p 15).

Criteria for good indicators

Rennie and Singh's (1996) list of criteria for evaluating indicators provided clear definitions for each one, including valid, measurable, verifiable, cost effective, simple, relevant and sensitive. These were applied to the participatory indicators previously obtained from meetings with SHGs in

February 2002, in order that what it is that makes a successful indicator could be understood more clearly.

Different indicators and measurements will suit different types of stakeholder

Indicators at different levels and of different levels of scientific accuracy and complexity – for primary stakeholders the indicators must be seen to be relevant to their situation and within their capacity (time, resources and skills) to carry out themselves. This means that one set of indicators will probably not suit all. Multi-tiered systems of monitoring and evaluation that combine 'expert' indicators with 'non-expert' indicators are often required if everyone's needs are to be met. It was anticipated that this project would need a multi-tiered system.

Early on in the process the need for improving the understanding of participation in M&E and how to achieve it amongst the team became quite evident and two key representatives from the NGOs were sent on a three months PM&E training in the Philippines. In 2003, Simone Purohit, who took on the role of PM&E co-ordinator, went for a two week training in Reading in the UK focusing on how to analyse qualitative and qualitative information.

The person on the PM&E team who had gone to the Philippines learned about the procedures and tools needed for PM&E, and had opportunity to practice these, but his main lament was that this was biased towards those who were literate. They learned less about how to work with the illiterate and less aware. He shared his experience and knowledge with the team responsible for PM&E in team meetings and monitored the levels of participation in the various research efforts designed. When he did not think they were sufficient for building capacity of participants or for finding sustainable indicators and measures he tried to improve this by insisting on participation of people at all stages in the process, which resulted in a greater learning experience for all involved. His report is incorporated into the appendix 'Reports from Training'.

The person who went to Reading learned about analysis of qualitative data which helped in the analysis but also in the redesign of indicators and their methods at a later stage in the process. She felt that her training had come too late to be of optimal value to the project, but said that after a PM&E exchange visit to another NGO who were just getting started, they benefited a lot more from the combination of her training and experience with project efforts at PM&E so far.

3. DEVELOPING A PARTICIPATORY M&E SYSTEM.

3.1. Overview

Table 3.1 summarises key events in the process of developing the M&E system.

Immediately after the beginning of the project a traditional approach to monitoring and evaluation was established with the family information survey (F.I.S), a baseline survey based on indicators such as land ownership, possession of goods such as radios, house, and monetary income and so on. Early attempts (Feb 2002) to initiate a more participatory process failed to take hold as the team grappled with the complexities of the project and getting the activities off the ground. Two key members of the NGO staff were sent on a 3 month training programme on participatory M&E at the International Institute for Rural Reconstruction, Philippines (IIRR). Meanwhile literature was made available and a discussion document prepared (appendix 1) to guide and inform a team meeting that aimed to resolve problems that had become apparent with the design and coordination of the research programme as a whole.

Although the principles of participation in monitoring and evaluation were better established after the two week research planning meeting, there was still a lack of focus on developing a participatory approach. The team concentrated on the need to answer the research questions identified using a pre-planned approach, although it was more objective focused than the FIS, and more cost-effective.

However , after designing and piloting the planned methods a review meeting established the fact that there was a great deal of repetition in the data being collected and that there was no participation of the primary stakeholders. A large part of the plans were abandoned or, in the case of the questions related to changes in livelihood activities and outcomes, significantly modified. The team refocused on the need for participation and carried out meetings with the communities to identify participatory indicators that would meet the communities needs for information as well as the teams. With reams of indicators identified form this process, the team selected which ones would be best and planned their collection.

Following the first stage of data collection, another reflection meeting found the trained team members frustrated that they had not yet achieved the ultimate level of participation which should focus on building the capacity of community members to monitor and evaluate their own activities and efforts. This and the process to be followed was discussed in a team meeting led by those who had attended the PM&E training. At this point it was decided that, in parallel with collection of data relevant to the participatory indicators, they would experiment with setting up a more participatory approach that would encourage participants to be involved at each stage of the research. This would be done on a small scale using procedures recommended in the training.

This sequence has resulted in a tiered M&E system with varying levels of participation and a team a great deal more experienced in the establishment of PM&E than at the start of the programme.

3.2. Planning the research to respond to objectives of the project

Establishing the research questions

Even before we began any process of monitoring and evaluation the research team (consisting of staff of an agricultural university, development NGOs and research NGOs, with input from academics working from the United Kingdom) first had to understand what is it that we were looking for. In a whole team meeting (Aug 2002) the team carried out a brainstorming sessions and came up with seventeen questions that would need to be answered in order to monitor change resulting from implementing the plans of action. These were condensed into 4 sets of questions listed below;

Livelihoods

What are the existing livelihood options?

What strategies will help improve existing livelihoods and create new livelihoods at group or individual levels?

What is the impact of these strategies on livelihoods on different categories of the poor at group or individual levels?

Which strategies work and did not work out and why?

Natural Resources

What are the existing natural resources?

What NRM strategies in the project resulted in improving existing NRs, and livelihoods? Which ones have succeeded and which ones failed and why?

What are the changes in NR, What is the impact of the changes?

What capacity building measures have been taken and what is their impact?

Human Capital *This is really looking at changes in capacity to adapt/manage own projects.*

What are the changes in Human Capital (attitudes, skills, knowledge) at the village level?

What capacity building measures have been taken?

Target Institutions

What methods could achieve greater involvement of TI s and what is the impact?

What are the changes in attitudes and capacity of TIs?

3.2.1. Levels of participation - who should take part in developing the monitoring and evaluation?

While designing the research format some of the issues addressed were

- Who is going to learn what from this?

- How will they use this learning?
- Who should be involved in this, how and when?
- What methods could be used?
- Who and how many in the sample?
- How do we record the information and what have we learnt?

These questions were used in the meeting to look at how to establish a plan for participation in the learning process. We realised that the Target Institutions may not be interested in being involved in any way except to receive reports and perhaps discuss and perhaps help interpret the results. We also agreed that within the timeframe and resources of the project it would not be possible to consult all stakeholders at the design and implementation parts of the research process. The plan for participation then focused on who amongst the team and primary stakeholders would contribute what to each step in the process as the example drawn up for the SHG for IGAs shows:

Table 3.1 Planning for the participatory monitoring process

Stage		Who to involve	How
Identification of indicators		Research team and then COs/RAs and management team	Using approach tried in February 2002 – discussions with SHGs.
Collection of Information	Pilot phase collection and analysis	COs and SHG members	Meetings
	Adaptation according to experience	COs research and management teams, and UK team	Meetings
	Collection	COs and SHG members	Meetings
Storage of data		RAs research committee and UK team	Follow agreed protocol
Analysis		RAs Research committee and UK team	To be decided.
Lesson focused reporting and feedback		COs and SHG TIs Team	Display of results and discussion with relevant SHGs and TIs.
Use of findings.		Answer research questions	

In the initial follow up meetings, the first step was to build ownership of the process among the NGO community organisers and then the village community and the question of the role of the community organisers (CO) in doing research was raised. Normally it is the researchers who do the research and the community organisers are involved in the mobilisation of the community and village level work (particularly the establishment of self help groups). While the COs understood they should be a part of the research they were very clear that they could not collect data and that should be the role of the research members of the team. They felt they could contribute in facilitating the process, such as organising meetings and writing their monthly reports

but felt uncomfortable collecting data and recording it in the form of tables. It was decided that the self-help groups would collect some of this information, some by the COs and the rest by the research team in a combined effort

3.3. Designing methods and procedures for researching the questions identified.

Development of a wealth characterisation and ranking procedure.

Having defined the research questions thought necessary to meet the project objectives, the need to describe how the interventions affect different types of people in different ways arose in the form of the questions, 'who are the poor?' and 'what do we mean by Who?'. The need to define people in more detail but to still be able to consider them under simple categories for the sake of implementation and analysis and the need to have accurate and location relevant information, meant that wealth characterisation and ranking were selected as the most appropriate methods of overcoming the problem.

As many of the team members were new to the process it was decided to try a pilot in one non project village where one of the NGOs had worked before. Here a group of village representatives identified each family, their level of poverty and the reason they put a person at a particular level. The people came up with eight different levels to identify the richest to the poorest in the village.

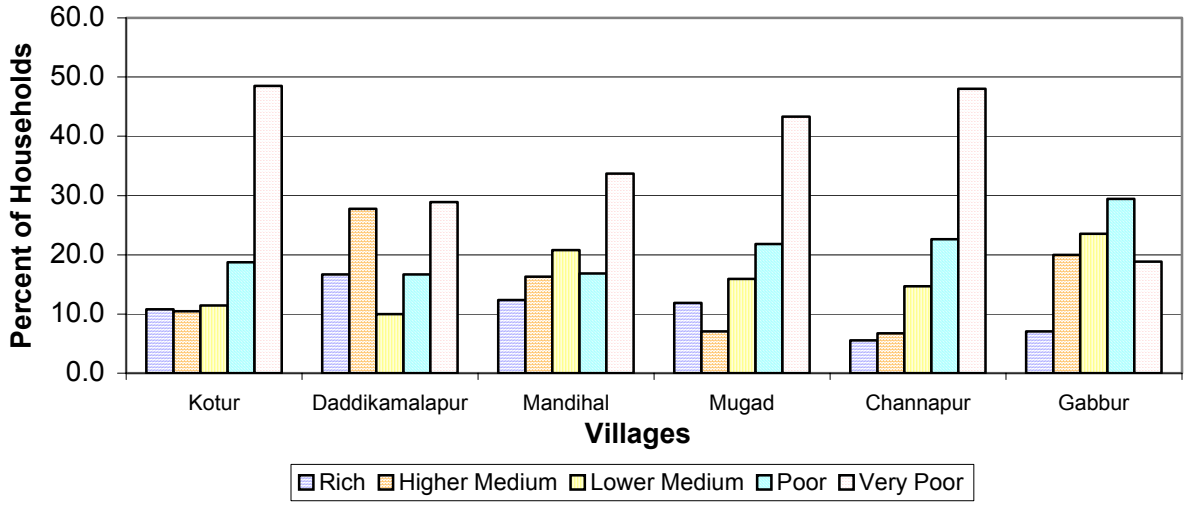
When the team came back and discussed this first experience, it was felt that if the number of levels was kept open ended then it would be difficult to analyse across project villages. Another method was then tried out in one of the project villages where the team gave the village representatives a fixed number of categories. The richest were in the first category and the poorest in the fifth category. The representatives ranked each family accordingly, giving reasons.

Need to explain why this method variant is necessary – large village – need to do street by street Representatives from each street/area in the village came together and were given 5 stones and only told that the first stone is the richest category and the last stone in the poorest. This method is not clear here They also had cards, each of which had the name of the family and the household code. One person read out the name from each card to the group and the group discussed the family and then decided where they were going to place them. Every time they placed them in any category, they were asked why they placed them there. The reasons were noted on chart paper put up on the walls. It was really interesting because they really looked at a range of issues before deciding where to put each card. There were representatives from each organisation during the exercise. Everyone decided that this was a good method and did not take very much time. While in the smaller villages representative of the village could rank all the families in the bigger villages it would be more difficult. It was then decided that the bigger villages would be broken into smaller groups and the exercise done simultaneously in all the groups.

Figure 1 below shows the break up of the wealth categories in each of the villages. Also see Annex C, Chapter 10.[1]

[1] For the corresponding tables please see the Annexure

Figure 1.1: Wealth Categories by Village



The chart clearly demonstrates that the use of only 5 categories was the main limitation of the method selected. The limiting of the number of categories to 5 had the effect of masking the details about the poor that were actually sought as the objective of the exercise. After some reflection it becomes obvious that the most time consuming part of the exercise is describing the characteristics that result in how each family was ranked. This might have been reduced somewhat by limiting the number of categories, but overall it reduced the value of the exercise dramatically. Better to have spent more time and achieved the objectives. Neither was the issue of comparability improved by limiting the number of categories to 5. It would have been better to either keep the largest number of categories obtained for the purpose of collecting the information and then merge them according to similar general characteristics to make them comparable afterwards, or to simply to choose a larger range (e.g.8) in which to do the ranking in all villages, or to require representatives to re-rank the poorest group amongst more (perhaps another 3) additional categories after this event..

After the wealth ranking exercises was completed and each household had been defined in terms of wealth the team was ready to review the preliminary designs and conduct pilots for each of the research questions identified.

Pilot testing the preliminary research designs.

Amongst these questions, some could be answered from other data already being collected such as the process documentation and the baseline survey (Family Information Survey or FIS1, on CD). For the other questions it was decided to conduct a pilot of the various data collection procedures that had been designed. In designing the methods for the questions it was thought changes that had occurred at different stages and resulting from different events would be detected. The methods were piloted one after the other and during the process it became obvious that there was duplication in the information being sought. The piloting of the methods also bought to the attention of the team the fact that it was not a participatory process at

all, but very extractive. It was decided to drop this format for most of the questions with the exception of livelihoods, and start thinking afresh what the team and the village community thought worth monitoring. Up to that point the team had decided what should be monitored and had administered the methods and recording formats. The questions that the team had come up with, were then divided into what would be covered through PM&E and what would be collected through the process documentation and reflection sessions.

3.4 Establishing participation through involvement of primary stakeholders in identification of indicators.

It had been decided that indicators would be identified to answer the main research questions. In most projects these indicators are defined either by the NGO, the researchers or sometimes even by the funders. As the project was participatory from the outset, it was then decided that the village community would define the indicators that they wanted to measure. The team was also interested to determine indicators that would meet it's own needs for answering the research questions. Once the indicators were collected from the communities they were collated by the team and reduced to a more manageable number and those that would be easily measurable and applicable across all the villages.

When the team first did the exercise there were some difficulties such as what exactly does one tell the people, finding the right words in the local language and so on. It was also found that the village community could think of indicators only after they had started an activity. When discussions started on activities that were not yet started, they only wanted to know when the activity would start and why nothing had been done about it as yet.

Once the indicators were defined, collected and collated the next thing to design was how they were going to be measured. Some members of the team came with some simple and easy measures and methods to measure. One set of indicators was tried in Kotur with one SHG. It was found that some of the methods would not work (see Plate B22, Annex B). There were a couple of problems found even using traditional participatory approaches. The first was that because we used open methods of voting people tended to vote in the same way rather than according to their convictions, particularly where they were members of the same self help group. Going against the majority was too uncomfortable for anyone to attempt in an open voting system. The method was adjusted by providing cards to each individual who would, in private, place it according to which position on a scale of satisfaction they agreed with, giving reasons to the recorder as they did so. This worked well, with a wider range of results showing more honest voting. It was decided to try this methodology in the other villages too. The NGOs felt that it was a simple exercise and would be enjoyable by the community.

Yet, the team felt that they were not being truly participatory. To be truly participatory the people had to not only define the indicators but also decided what were going to be the measures, what methods they would use to measure the indicators, at what frequency they would measure them and who would be responsible to measure. They should also be involved in the measurement, recording and analysis. Two of the team members, who had been trained in participatory monitoring and evaluation, took the lead in this process.

The team decided that while some of the indicators would be monitored by the people, the rest would be monitored by the team with the help of the communities who would be interviewed using a more participatory approach than formally used, that would facilitate open communication, as opposed to researcher-informant relationship and structured and inflexible question and answer style interviews that would often yield unqualified data. Though a list of indicators had been identified by the communities and the team it was decided that the indicators that the people would monitor themselves would be identified by them and that we would not impose any indicator on them. So from this point onwards two processes took place for the participatory monitoring. In these two processes the level of participation differed.

- Those indicators that were identified and monitored by the people with the help of the team (PM&E)
- Those indicators that were identified by all stakeholders and monitored by the team with the help of the people (PIs) M&E

For the (PIs) M&E it was decided to follow the same SHGs that had been chosen in the original research design. These were chosen by the team using the following criteria:

- minimum two and maximum 5 SHGs in each village.
- only SHGs formed before January 2003.
- SHGs with more poor members and
- SJGs with diversified activities.

The result of the selection was a sample of 19 SHGs in the 6 villages (defined in table below).

Table 3.2. Self help groups selected for monitoring

Village	SHG
Gabbur	Gramadevi Mahila Swa Sahaya SHG
	Siddaruda Swa Sahaya SHG
Channapur	Maruthi Swa Sahaya SHG
	Muru Mukthamma Swa Sahaya SHG
Kotur	Yamanurappa Swa Sahaya SHG
	Rajeshwari Swa Sahaya SHG
	Sri Renukadevi Prassana Mahila Swa Sahaya SHG
	* One SHG that had been selected for Kotur ceased activities half way through the process, as most of its members had decided to migrate for work.
Mandihal	Shridevi Mahila SHG
	Sri Kalikadevi Mahila SHG
	Mahalaxmi Mahila SHG
	Akkamahadevi Mahila SHG
Mugad	Durgadevi Mahila SHG
	Laxmi Mahila Swa Sahaya SHG
	Madina Mahila Swa Sahaya SHG
	Durgadevi Swa Sahaya SHG (Janta Plot)
	Suban Alla Swa Sahaya SHG
Daddikamalapur	Tulja Bhavani Mahila SHG
	Durgadevi Mahila SHG

** The characteristics of the SHGs are described in Table 3.3. below.

Table 3.3. Characteristics of the SHGs to be monitored

Village	SHG	Age on 31 Dec 2004 (months)	Number of members at start	Number of members now	Gender
Channapur	Maruthi	36	20	16	M
Channapur	Muru Mukthamma	32	12	11	F
Daddikamalapur	Tulja Bhavani	33	13	12	F
Daddikamalapur	Durgadevi	33	10	10	F
Gabbur	Gramadevi	42	20	18	F
Gabbur	Siddaruda	42	18	17	F
Kotur	Yamanurappa	25	17	16	M
Kotur	Rajeshwari	30	13	12	F
Kotur	Sri Renukadevi	16	10	10	F
Mandihal	Shridevi	27	15	14	F
Mandihal	Sri Kalikadevi	29	12	12	F
Mandihal	Mahalaxmi	28	13	12	F
Mandihal	Akkamahadevi	33	15	15	F
Mugad	Durgadevi	45	10	10	F
Mugad	Laxmi	45	11	11	F
Mugad	Madina	28	10	10	F
Mugad	Durgadevi (J Plot)	32	12	12	F
Mugad	Suban Alla	36	10	10	F

The original list of indicators for each of the strategies are described in annex 1 of the Participatory Monitoring and Evaluation report 2004. This shows the inclusion of various project strategies that were eventually not covered for reasons related to lack of outputs due drought conditions, personnel and coordination, and opinions as to whether indicators could be found that were adequately sensitive to measure NR changes in such a short time from the completion of an activity, for example water tank restoration projects. Village Forestry Committees (VFC) also posed a problem and the indicators remain un-tested. Indicators that were covered were those selected for four strategies.

Table 3.4.Summary of methods and sample eventually used for the (PI) M&E

Strategy	Indicators	Quantitative measures	Qualitative measures	Sample
Vermi-culture	Decrease in the use of chemical fertilisers	Consultation with farmers who gave information about numbers of fertiliser and pesticide applications and quantities produced and sold and income made.	Voting with name cards on perceptions of improved crop development and increased awareness of value of VC.	Of the sample of 18 SHGs the ones in the 4 villages that were involved with the strategy.
	Less use of pesticides			
	Perceptions of Improved crop development			
	Income generated from VC			
	Increased awareness on vermi-compost –number buying it/using			
Agroforestry	Increase in tree cover	Field survey of trees well established on fields before and after		35 people from the 1 village involved
	Perception of increased fodder availability		Voting with name cards	
	Perception of change in crop development			
	Perception of improved soil moisture retention.			
	Perception of improved agro-forestry management capacity			
Livestock	Number of hhs expanding existing or starting up new livestock enterprises since 2002 (?)	Call out and count.		Members of all 18 SHG groups that have been involved with livestock interventions.
	Number of people building new poultry houses	Call out and count number of members		
	Perceptions of reduced incidence of disease		Count of members who perceive increase or decrease in disease incidence	
	Change in attitude towards vaccination	Count of number of members who have always used vaccinations, who used it for first time and who plan and do not plan to vaccinate in future		
Livestock (continued)	Increased productivity	SHG members raise hands if they fall into one or other of the levels of milk yields called out. Total sales of animals also recorded per SHG		
SHGs development	Meet regularly	Transcription and analysis of records from SHG record books		All members from all 18 SHGs.
	Save regularly			
	Demand for training and ideas on IG activities	CO records		
	Timely repayment of the loans	Transcription and analysis of records from SHG record books		
	Number of new IGAs.			

	Capacity to go to the bank and TI's			
	Decrease in use of Money lenders	Members raise hands if their family has used a ml over the period in question	Members consulted for reasons given for use of ML.	
	Participation in decision making		Members raise hand if they feel they participate more in decision making.	
SHG livelihoods	Increase in number of children going to school	Consultation with each member		
	Use of loans			
	Amount of asset built up through the IGAs			

3.5. Experimenting with higher levels of participation (PM&E)

The team decided that one activity in each village would be measured. The team chose the activities for each village as shown in the table below.

Table 3.5. Activities to be measured by participatory monitoring and evaluation

Village	Sample	Activity
Gabbur	Cattle owners , mainly the 17 members of Siddarudda SHg	Dairy
Channapur	36 farmers that had been involved in activity some members of SHGs, some not.	Wadi (Agroforestry)
Kotur	The 16 Members of the Yamanurappa SHG	Tank restoration
Mandihal	The 12 members of the Kalikadevi SHG	Self Help Groups (SHGs)
Mugad	The 11 members of the Laxmi SHG	Income Genrating Activities (IGAs).
Daddikamalapur	About 20-25 people from the village	Village Forestry Committee

Exercises were conducted in each village where indicators were identified around one activity that had taken place in that village as indicated in the above table. The team went in with nothing but a few sheets of chart paper and some pens and followed a procedure tried by those who had attended the training at IIRR in the Philippines. This was based on going through the questions below with the participants, and asking them to indicate various aspects of their monitoring plans pictorially. These pictorial plans are shown for each of the villages along with a description of the process below.

Once the indicators had been collected it was decided that in each village the people would measure one indicator. This was because we found that more than one indicator

would be too much for people who were doing it for the first time. The team decided that we would measure the remaining indicators with them.

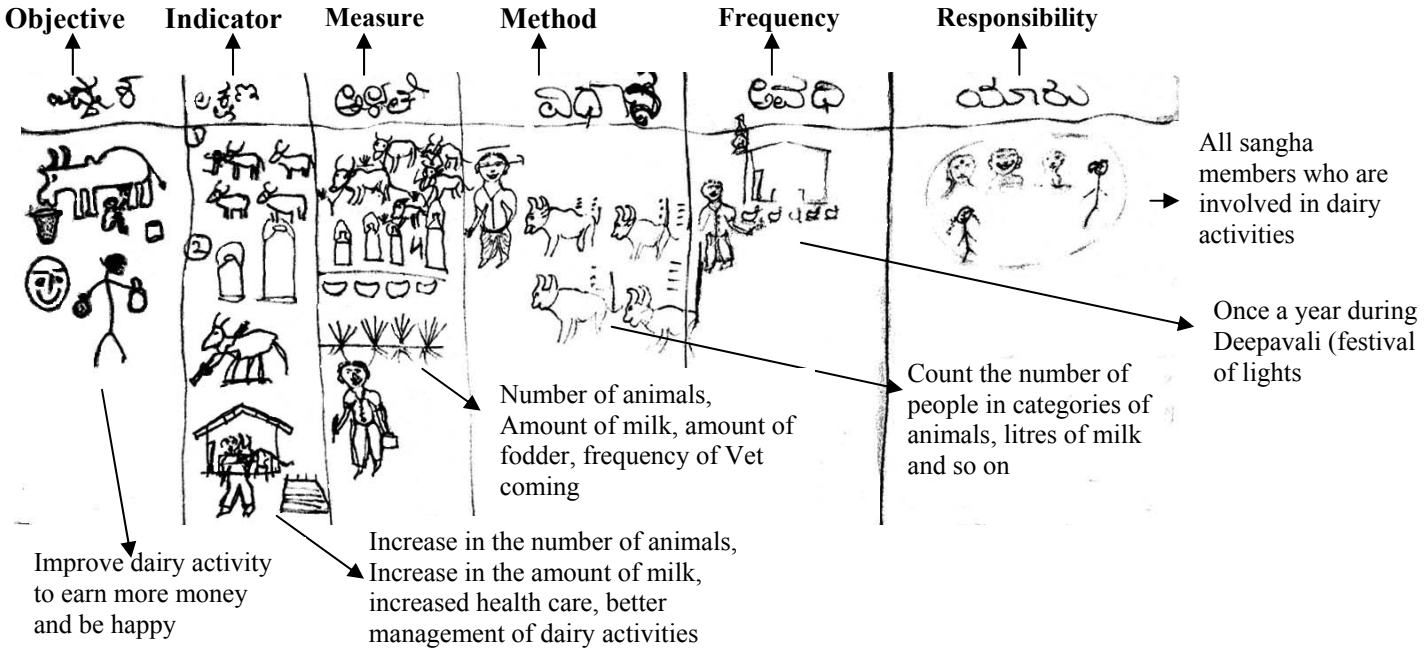
Table 3.6. Summary of PM&E tried in each village.

Village	Strategy	*Latest Indicators (Nov 2004)	Method
Gabbur	Dairy	Increased number of animals, milk yields, fodder availability and frequency of visits from the vet.	Count the number of group members in different bands of animal ownership, milk yield and number starting fodder production and number of visits from the vet and compare change over one year.
Channapur	Wadi (Agroforestry)	Plants (crops and trees) survive and grow well and are properly cared for.	Group assessments after observation of the condition of each wadi.
Kotur	Tank restoration	Sufficient moisture in the soil to permit another crop; standing water in the summer for animals to drink and women to wahs clothes, to irrigate horticultural crops and get good yields.	Discussion and observations. (for our purposes, photographic evidence has helped with this.
Mandihal	Self Help Groups (SHGs)	Everyone can get loans and repay them. More use of loans for things that will bring income.	Loans taken and repaid reported by each women, and what they were taken for, indicated by each women on a dot and picture chart.
Mugad	Income Generating Activities (IGAs).	Attendance and regularity of meetings, courage in meeting officials, starting IGAs and having more assets like TVs and gold jewellery.	Use of a ladder scale based on 16 rungs, to show how they feel they have improved in each respect, after discussion and consensus is reached.
Daddikamalapur	Village Forest Committee.	Reduction in use of fire wood, Increase in tree cover, availability of fodder, availability of fuel wood and fruit, water in tank and increased influence over forestry department.	Observation, numbers of wood piles and fodder piles, meetings with forestry officer, estimated changes in forest cover and water in tank.

* In many cases (Mandihal, Mugad, Kotur, Channapur) the original indicators were adjusted by the participants themselves according to their first experiences.

Gabbur

Figure 3.2 Initial participatory monitoring diagram, Gabbur, July 2004



In Gabbur the objective was that of improving dairy activities as a large number of families are involved in this activity. The men take the milk to Hubli city and sell it there. The indicators that they had chosen included increased number of animals, increased production of milk, better health care and better management of their animals.

Figure 3.3 Modified participatory monitoring diagram, Gabbur, November 2004

In November 2004 they measured their indicators where they counted the number of families who had between 1-2, 2-3, 5-6 and above six milch animals and 1-2, 2-4, 5-6 litres of milk production per day. They also counted the number of families who had started growing fodder grass. They drew a picture of an injection said that the Vet was coming regularly to their village. They also felt that all of them were managing their dairy activity better as they now had increased awareness. Management included looking after their animals and keeping the sheds clean among other things.

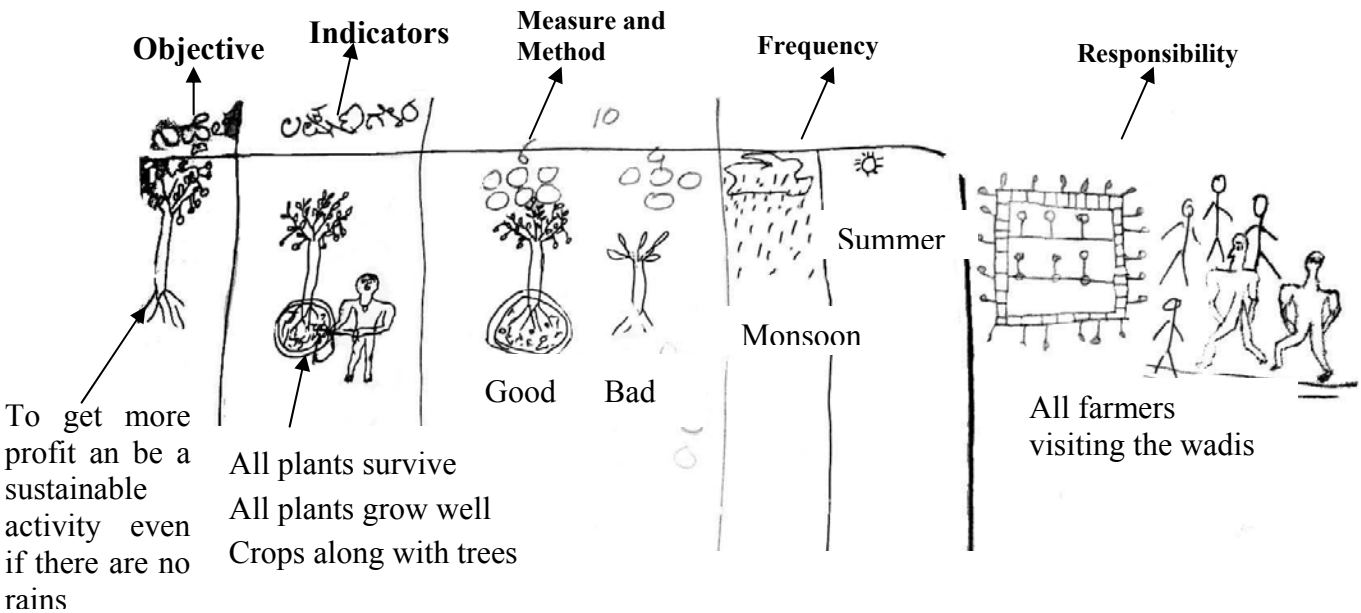
One interesting aspect seen when they were counting the milk production for each family, one person asked everyone else to calculate the number of litres of fresh milk

and not the watered down version that they sell. While calculating the number of families for the number of animals they even counted those families who were not present for the discussion. But when they calculated the number for families for milk production they only counted the people who were present. This is because while they all knew how many animals other families had they did not know the production amounts.

Channapur

In Channapur the indicators were around the Wadi (agro-forestry) activities. All the farmers who had taken up this activity came together to first decide what the objective was of making wadis and then they came up with the indicators, measures, methods, frequency and responsibility. The objective was to have a well-maintained wadi. The indicators of a good wadi included one that had fruits trees that were growing well, each of the trees had ring bund trenches around it and were watered regularly by the farmers. The method and measure was combined into one. All the farmers would go to each of the farmers and grade the wadis as good or bad. The wadis would be graded on how many trees were surviving, how many of them had ring trench bunds, how many of them gave fruits (at a later stage). The frequency would be twice a year, once in summer and once after the monsoon. The responsibility of was that of all the farmers.

Figure 3.4. Participatory monitoring diagram, Channapur



In the first round about 22 farmers gathered together and managed to visit 17 wadis that day. They classified the Wadis according to the number of surviving plants, bunding, mulching and if there was fodder grown on the bunds. The farmers realised that the categories they had provided for rating the wadis were not enough so they came up with new categories. The grades and the number of wadis under each grade are given below.

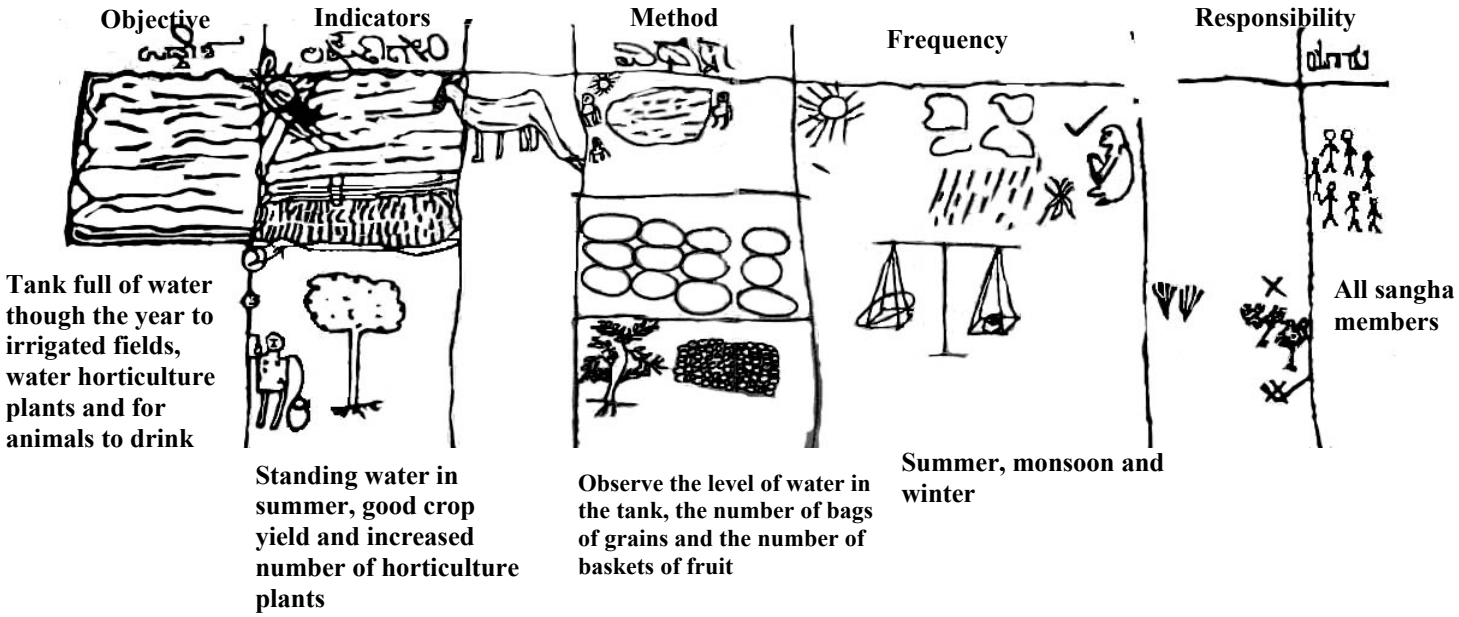
While the farmers went from plot to plot they all discussed each of the plots. If there was something negative they told the respective farmer then and there what he was

doing wrong and if they saw something that was done well they appreciated it and decided to do that in their wadis.

Kotur

In Kotur one group of farmers who lived around a tank came together and repaired their tank bund. This group of farmers then formed a sangha. This sangha designed indicators to monitor the impact of their efforts. The objective is to have a tank filled with water so that they have enough water for irrigation, for animals and to increase the water table. The indicators included standing water even in summer, good yield from crops, increased number of horticulture plants. The methods were to observe the level of water in the tank, the number of bangs of grains they get and the number of baskets of fruit they get. The frequency would be three time a year, summer, monsoon and winter. It would be the responsibility of all the sangha members to measure the indicators.

Figure 3.5. Participatory monitoring diagram, Kotur.



Mandihal

In Mandihal several attempts to start the PM&E took place. The same methodology was used as in the other villages but it was not found to be very successful. Therefore another methodology was found where the sangha members could monitor their sangha especially the IG activities that they have taken up.

In the second round the women first revised what they had done earlier. The objective here was the number of income generating activities the members had started as a result of the sangha. It then was decided that they would see the number of loans taken. The women said, *we drew a weighing scale. We also drew a cash box, rose, a woman with a bag, a bag of manure and a book. In the book we can see the sangha accounts. We had drawn a ladder so that we know at what step we were. And how much we have progressed. We had shown that we were on the 7th step. We would weigh the rations. The bricks were to build the house. We had taken loans to buy bricks, tiles and a vessel. We had decided to check the sangha records once in three*

months. We had drawn a notebook with our accounts in it. All sangha members should do it together, three times a year. In winter, monsoon and summer.

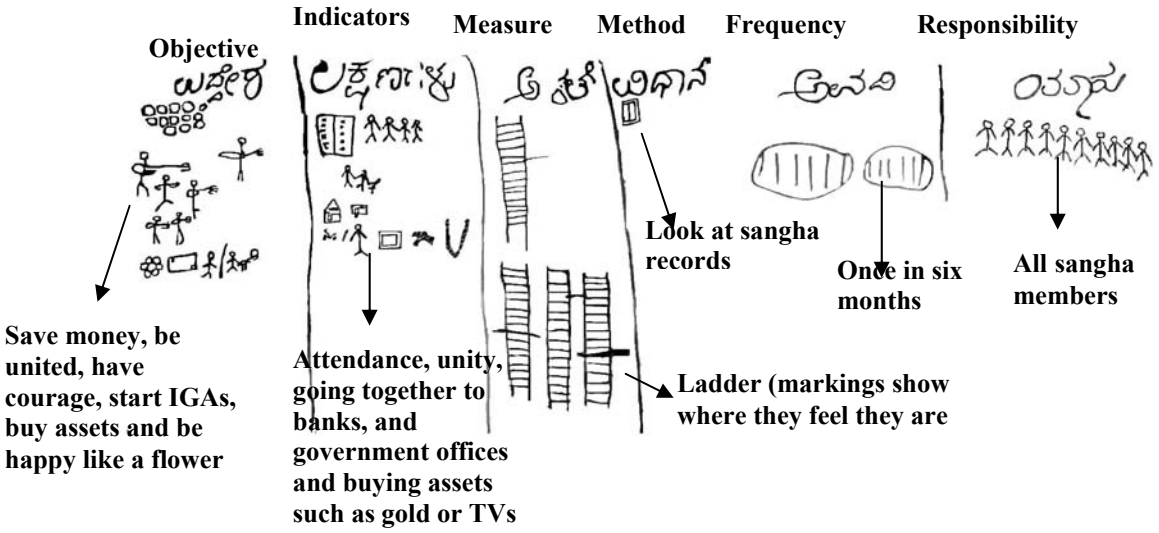
The methodology used in the second round was that every woman goes up to the chart paper and draws circles against their names to show how many loans they have taken. Then if they have repaid the loan they cross out the circle. From this they could easily count the number of loans they had give and how many of these loans had bee repaid. This way even the people who cannot read could see the number of loans taken and repaid. *Our names are there and how many loans we have taken. Once we have repaid we will know. We get to know who has taken the loan*. It was then discussed as to what the loans were taken for. It was decided to divide them into two sections, one where they had taken the loans for production (where their money would give them some returns) and one where they had taken the loans for consumption (where the money would not give them any returns). Each woman then goes and draws what she has taken the loans for under the respective columns. The women then analysed what type of loans they had taken. They had taken 11 loans for consumption and only five loans for production. The women felt that they have a long way to go and their sangha would be better if they took more loans for production than for consumption. After six months they did another round where the women drew any fresh loans they had taken and the loans they had repaid. They also drew what they had taken the loans for.

Mugad

The objectives of forming the sangha were to save money, have unity, courage, be able to buy TVs, and start IGAs. They had also drawn a flower, which they said represented that they should be happy like a flower.

The indicators they had decided upon were attendance, where all the sangha members come for the meetings; unity, shows that the sangha is strong; going to the bank, going to the panchayat and having bought assets such as a TV or gold.

Figure 3.5 Participatory monitoring diagram, Mugad.



The measure was a ladder. The method was that they would look at the passbook. The frequency decided upon was once in six months.

It was a simple measure against a ladder. The ladder had 16 rungs (each rung representing one anna.) It the olden days 16 annas made a rupee. Assuming that they were at the bottom of the ladder when they started the sangha, they marked off on the ladder where they were at this moment. They had discussions for each of the indicators and came to a consensus as to which rung they were at. Since the measurement involved only drawing a ladder and marking off against a rung of the ladder the women felt more confident of being able to go up to the chart and do it themselves.

3.6. Evaluation of Indicators

The participatory indicators were first reviewed in July 2004, in a meeting of the PM&E team for which there is a detailed report (K.Hillyer Notes from meeting with PM&E team July 2004), and then evaluated using criteria for good indicators at the end of the second round of data collection in February 2005.

Although we did not go through the indicators using a complete list of criteria for which to judge them, we had to look at their relevance, their measurability and their validity and decided which ones had to be modified or dropped. A lot of the discussion focused on developing the methods for collection and refining the expression of indicators so that the Research Assistants (RAs) could better understand

how the methods were appropriate, so that ‘reduced incidence of disease’ would become ‘farmers perception of reduced incidence of disease’.

Such indicators as ‘increase in yield’, ‘decrease in run-off’ needed to be changed according to what changes the farmers were actually able to observe (improved crop development and increased soil moisture). yield was not sufficiently sensitive or valid a measure; it would need a far longer time span and more closely controlled conditions so that the effect could be attributed to the treatment and not other factors, than this project could provide. Farmers observations were also under the same diversity of factors that could affect their observations. However, they tended to notice differences in crop development and soil moisture in comparison with neighbouring crop systems that were not under going the same improved management methods.

Some peculiarities in the way strategies had been managed that affected the validity of an indicator were raised, for example, ‘numbers of farmers buying compost’ was the measure being used to indicate an increase in awareness of the value of vermi-compost. However, the NGO involved had actually intervened in this process, so that the measurement had to be made more carefully, separating out those farmers that had received assistance to buy the compost and those that hadn’t.

At the end of the second round of collection of data another evaluation was carried out. This one was more evaluative, using the following criteria, which were explained to the team, including one of the CO’s. We decided to use a score of between 0 to 3, with 0 indicating no value and 3 being couldn’t be better. Through some discussion and explanation the scores were accorded to each and the team felt progress had been made, but the relevance and therefore potential sustainability or transferability of indicators would only be really known with consultation with the participants. First the results should be shown to the participants. Then they can see what can be learned from them and how they may be able to improve as a result. Once the potential has been explored with them, more appropriate information about the relevance and sustainability will be available.

4 Results

The results available from both the (PI) M&E and the PM&E are described for each of the strategies covered.

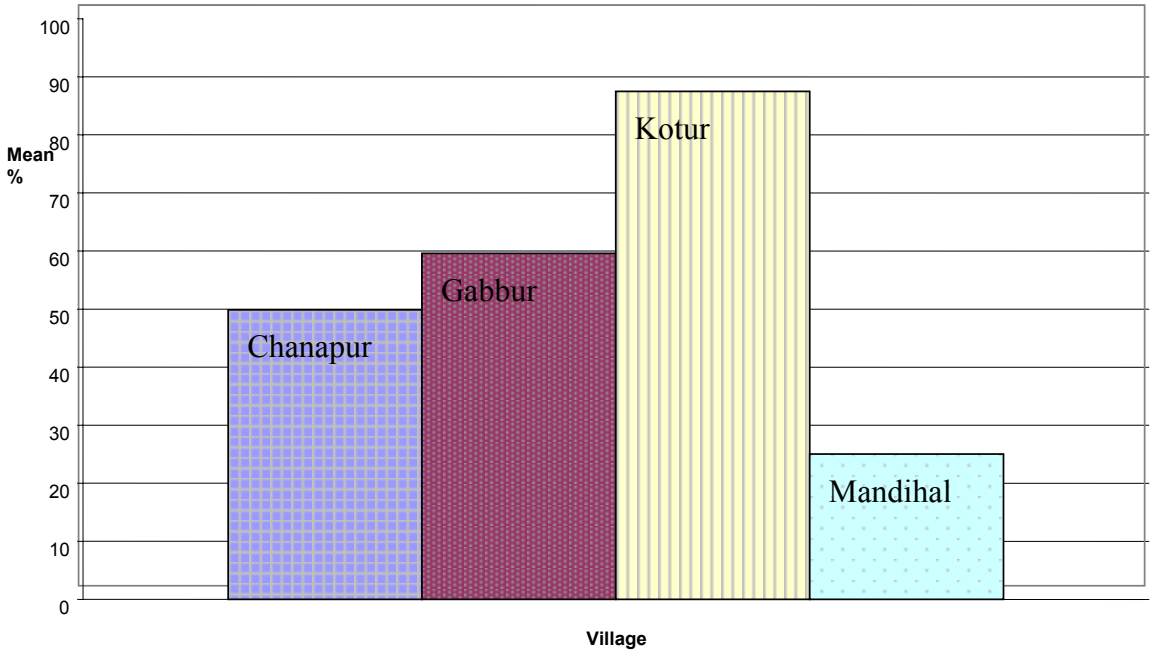
4.1 Vermi-Composting

Also see Annex N.

4.1.1 Decrease in the use of 'chemical' fertilisers

The use of chemical fertilisers has reduced by an average of 57%, ranging from 25% in Mandiahl to 88% in Kotur.

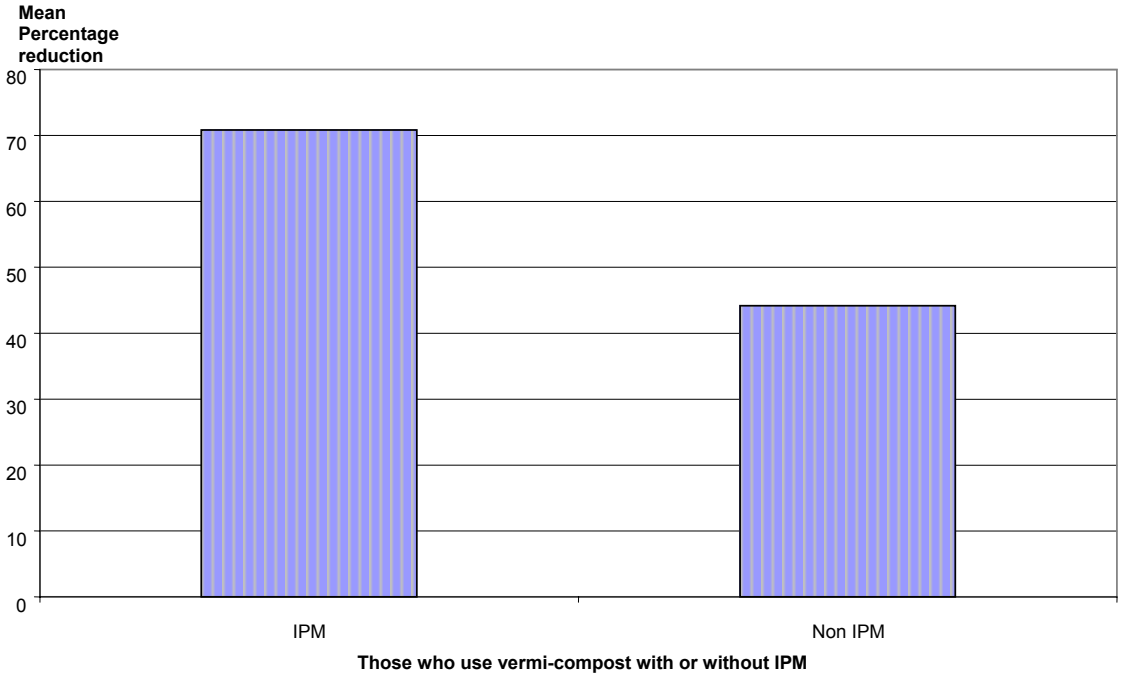
Figure 4-1 Mean percentage reduction in use of fertilisers in each village.



4.1.2 Decrease in use of pesticides

The benefit of reduced use of pesticides was really only noticed for crops where the original usage was particularly high that is for cotton crops in Chanapur, hence there is no pesticide reduction data for the other villages. The graph below shows that the benefit was considerably greater (27%) where the use of vermi-compost was combined with integrated pest management techniques (IPM), but even where the IPM was not used an average reduction of 44% was still achieved. For the sake of simplicity, the data is based on the number of applications, over-riding complications of type of pesticides and quantities involved which would be variable and unreliable.

Figure 4-2 Percentage reduction in pesticide use by Vermi-compost users, with and without combined effect of IPM



4.1.3 Increase in yields

It was not possible to calculate an increase in yields from use of vermi-compost as there were too many other contributing and confounding factors, not least that of rainfall, and different cropping from year to year. However, farmers had there own opinions about whether or not vermi-compost lead to improvements in the way crops were observed to develop, as compared with the same crops that did not use vermi-compost. 87% said they thought that crop development was better.

Table 4-1 Opinion about the affect of vermi-compost on crop development

Opinion about the affect of vermi-compost on crop development	**Number of Vermi-compost producers (who used their vermi-compost on their own fields)**	**%**
Crop development is better with vermi-compost	27	87%
Crop development is no different with vermi-compost.	4	13%

The farmers gave specific reasons for their perceptions of improved crop development, for example, Suresh Hanchinamani said "*during severe moisture stress the plants were green and retained more number of leaves compared to side by side fields where leaves of cotton plants were dropped and plants looked wilted*"; Yallapa Harijan explained that *"due to application of VC the height of cotton crop was up to waist level when the same crop with chemical fertiliser was still only at thigh level. VC treated cotton had more bolls (15-20/plant) compared to 6-7 per plant with chemical fertiliser*". Details of other farmers comments can be seen in the full Vermi-compost report, (Annex N), but the key points are summarised in the table below for both cotton and chilli crops.

Table 4-2 Reasons given by the farmers for their opinion about the affect of vermi-compost on crop development

Broad sense of reasons given for reporting better crop development with vermin-compost.	Number of farmers reporting each observation	
	Cotton	Chilli
Improved soil moisture retention	6	
Improved fertility	3	
Better crop development	6	
Prolonged life/improved fruit retention, more pickings and more bolls/fruit.	5	3
Farmers in next fields asked reasons for her success.	1	
Termite problems and boll worm problems reduced	1	1

4.1.4 Income generation from sale of vermi-compost.

The graph below suggests that production and sales of vermi-culture tend to be low in the first year of production but suggests a potential increase as the enterprise becomes established. An average of 30% of vermi-compost produced has been sold overall.

Overall the average income from sales is 450 rupees and from savings in fertiliser costs 610 rupees, a total of 1060 rupees. Once again the graph shows how income and savings increase with time. When the detail is shown for each village it seems that savings from reduced use of fertilisers is a more widespread benefit than from sales of vermi-compost itself. Indeed, the landless who produced vermi-compost with the

hope of selling it in Gabbur found that there was little demand due to the fact that many farmers there use sewage irrigation.

Figure 4-3 Mean quantities (quintals) of VC produced and sold according to length of time involved in activity

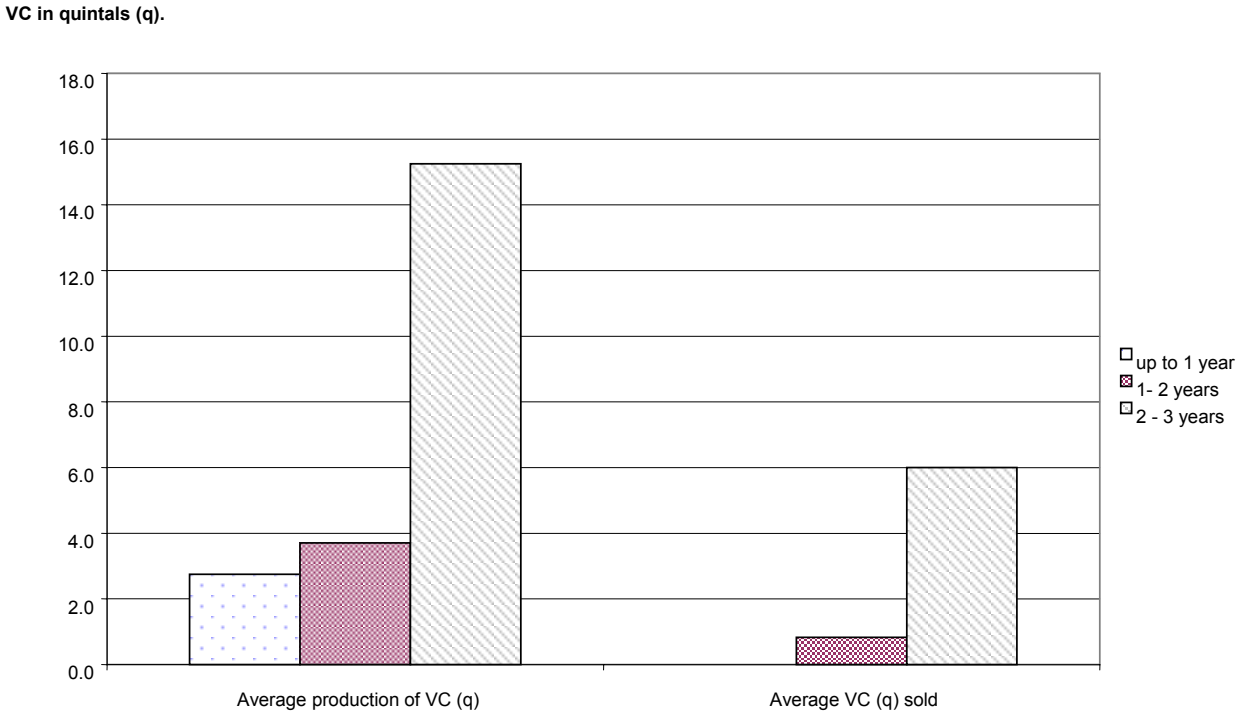


Figure 4-4 Comparing financial benefits of VC by village and length of time involved in activity (Rupees)

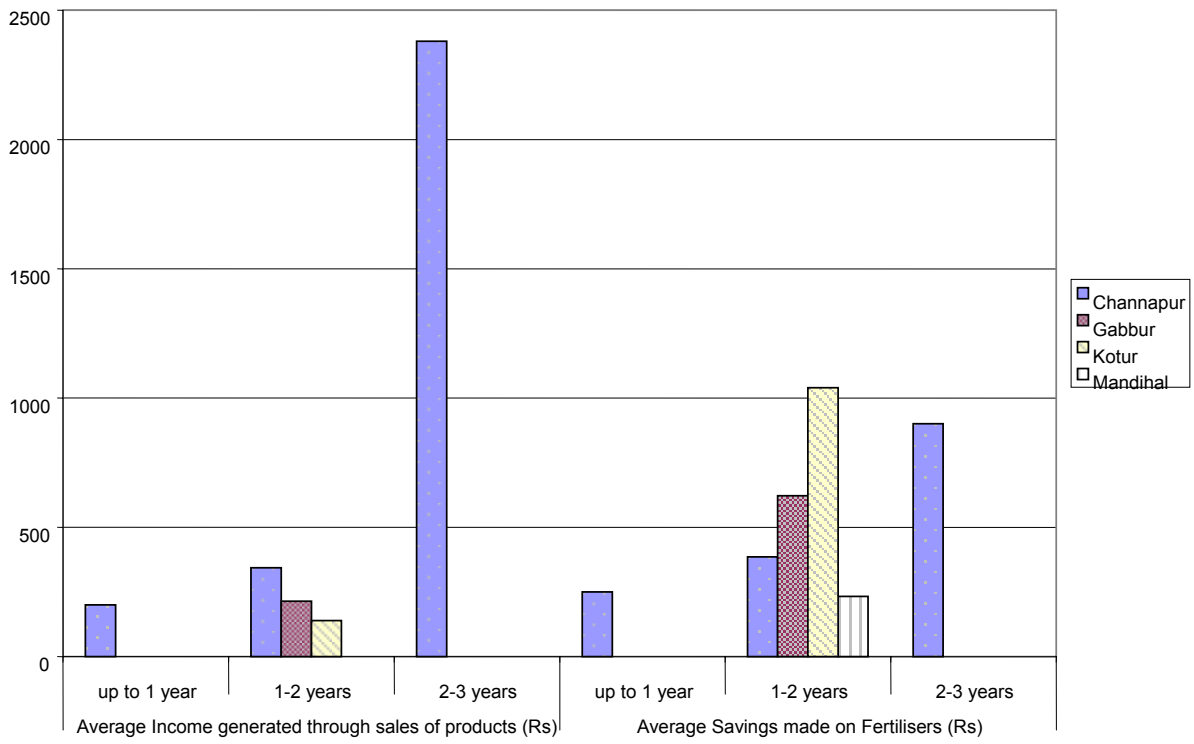
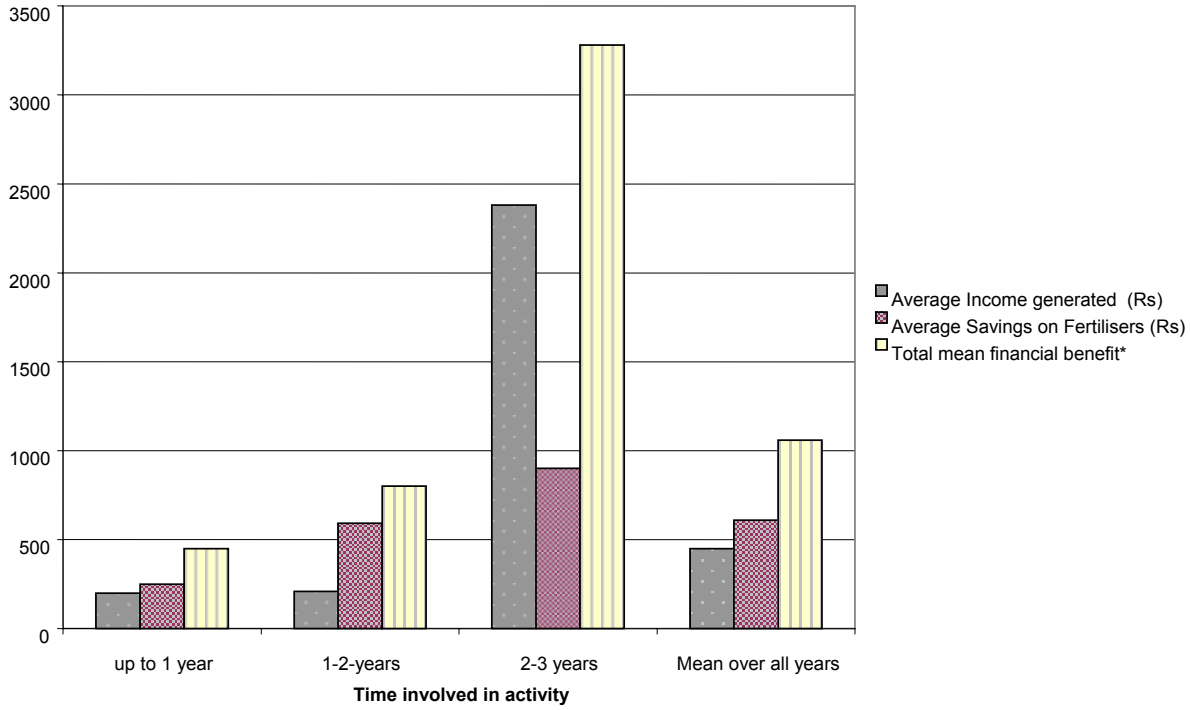


Figure 4-5 Mean financial benefit from sales of VC plus savings from reduced use of fertilisers according to time involved in activity (Rupees)



4.2 Agroforestry (wadi)

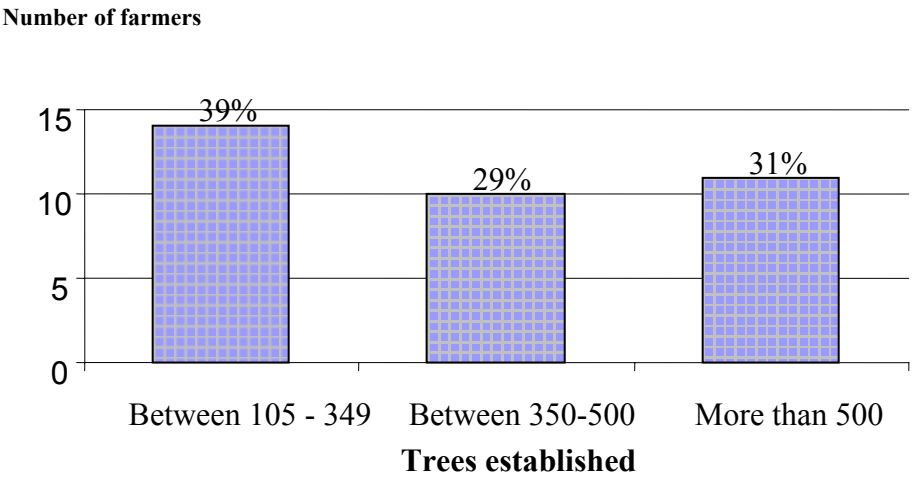
Also see Annex K.

4.2.1 Increase in tree cover

Before the agroforestry initiative began trees on fields were minimal. The average ownership of trees for the group of 35 farmers was 14 horticultural species and 10 forestry species. After 3 years since the interventions began, the average numbers of trees per field are 68 horticultural plants and 365 plants of forestry species, giving a combined average of 433 plants as compared to the original 24.

The plan was to provide sufficient saplings to establish 350-500 trees of mixed species in each farmers 1 acre plot, allowing for a 75% survival for horticultural and 50% survival rate for forest species.

Figure 4-6 Number of agro-forestry farmers by numbers of trees established on plots



The figure above shows that 60% (29%+31%) of the farmers involved achieved at least this level of tree cover with 31% exceeding it, despite the long period of drought that they suffered. The lowest number of trees established was 105.

4.2.2 Change in attitude towards trees

The extension of area under agroforestry beyond the 1 acre originally planned for is further described in the table below. This expansion is evidence in itself that there has been a positive change in attitude towards trees on fields.

Table 4-3 Expansion of Agroforestry plots (wadis).

Extension of Agroforestry plots (wadis)	**Number of farmers**	**Number of trees planted:**
With project support	**7**	Mango-201, Cashew-11, Sapota-196, Forestry (Mix of 14 species) 4712
With own expenditure:	**3**	Gauva-65 Lemon-15
With support from other projects (World Bank watershed)	**10**	Mango-169, Sapota-525, Forestry(Teak only)-250
Total	**20**	

The intervention began with 25 people in the 1st yr, with an additional 4 joining in the 2nd year and another 7 in the 3rd, showing increasing interest of the originally doubtful. Only one farmer dropped out as he was not prepared to put in the required work and was distracted from the farm by work in the city, leaving the trees to fail. However, this indicator was measured through a process of discussion and voting, and the results along with other indicators similarly measured are recorded in the table below.

Table 4-4 Results from group discussion and voting session with 25 farmers present.

Indicator	+	=	-	Reasons
Changing attitudes towards agroforestry	23	2	0	2 farmers felt the difficulties in caring for trees in drought conditions, but others thought this worthwhile considering future benefits. According to the group, originally farmers had thought they were mad to put trees on their plots and laughed at them. Now the same people are saying that they wished they had been involved.
Increased capacity to manage agroforestry	25	0	0	Before the intervention they had no confidence in establishing horticultural plants. Now they can see it can work with the associated water and soil management practices.
*Perception on changes in crop development	25	0	0	Composting is part of the management system and so crops benefit from improved soil fertility.
*Changes in soil moisture retention	25	0	0	Farmers have noticed an extended sowing period and also crop plants are seen to resist the dry weather better than crops in neighbouring fields.
Increased fodder availability.	24	1	0	1 farmer has not yet felt the benefit from very recently planted fodder species. Others are confident about sustained availability of fodder even in summer.

*Perceptions of changes to soil moisture retention and crop development replaced the earlier indicators of increased yields for the same reason as given for the vermi-culture activity.

The farmer's opinions about agro-forestry have changed as a result of this trial. 23 out of 25 farmers said they would encourage others farmers to do likewise. This is supported by the above information of 20 farmers extending their plots beyond 1 acre, and an increased number involved (from 25 to 35).

All 25 farmers perceived benefits to crop development and soil moisture retention and of fodder availability (given time for this to have established).

Increased capacity to manage agro-forestry was the indicator selected for complete involvement of the participants. They worked with the team member to design a method for monitoring that they could manage themselves which was agroforestry field walks. This was done in Channapur only and the results are described below with some explanation.

In the first round about 22 farmers gathered together and managed to visit 17 wadis in one day. They classified the Wadis according to the number of surviving plants, bunding, mulching and if there was fodder grown on the bunds. The fruit trees were not yet fruiting. The farmers realised that the indicators listed earlier were not sufficient to evaluate the wadis correctly. So they decided to add some other criteria for evaluation of wadis. Apart from the indicators decided in the PM&E exercise the participants decided to look into other criteria like soil and water conservation measures, basin, mulching, shade, fencing, survival and growth of plants and general condition of wadi.

Another 13 wadis that could not be assessed that day, were covered in a follow up meeting. The grades and the number of wadis under each grade are given below for both 2003 and 2004 visits.

Table 4-5 PM&E Channapur: Results from Agroforestry (Wadi) Field Walk and ranking of members capacity to manage their plots.

Date of walk and rating of wadis.	Excellent	Good	Normal	Bad	Number of farmers involved in assessment.
03.11.03	1 (3%)	9 (30%)	13 (42%)	7 (23%)	30
22.11.04		7 (22%)	15 (47%)	10 (31%)	32

This method of measurement has been far more useful in terms of shared experience between farmers and gives a great deal more detail than that of the discussion and voting method above. It does not seem that average husbandry capacity is increasing, however some new farmers have joined the group and these may not have the experience yet. More importantly, farmers who move from one category to another know that they have improved or worsened and why.

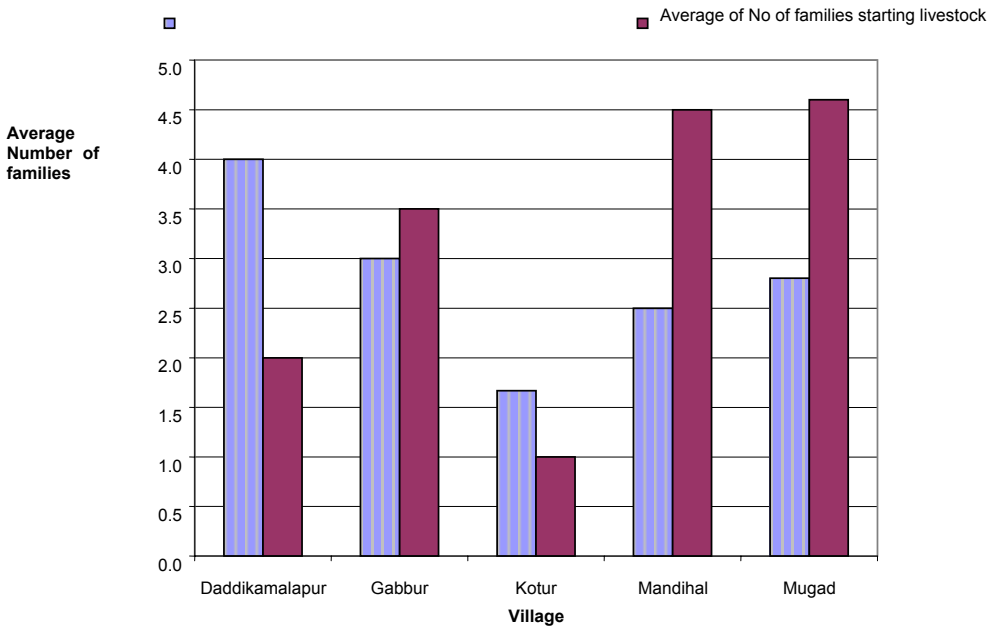
4.3 Livestock

Also see Annex C, Chapter 8. Due to changes in personnel the participatory indicators for livestock activities were somewhat neglected, despite a review of them in July 2004 (M&E progress review meeting notes July 2004, appendix 3). Only one set of data was collected which meant that it was not possible to analyse data for indicators that rely on detection of change through comparison between different periods. These have not been included here. Other indicators were measured with some kind of comparative reference and the analysis of these has still yielded some results.

4.3.1 Increase in importance of livestock to households

The average number of households per SHGs in each village that were expanding existing or starting up new livestock production were recorded and the results displayed in the chart below.

Figure 4-7 Average numbers of families per SHG expanding livestock or starting livestock for first time

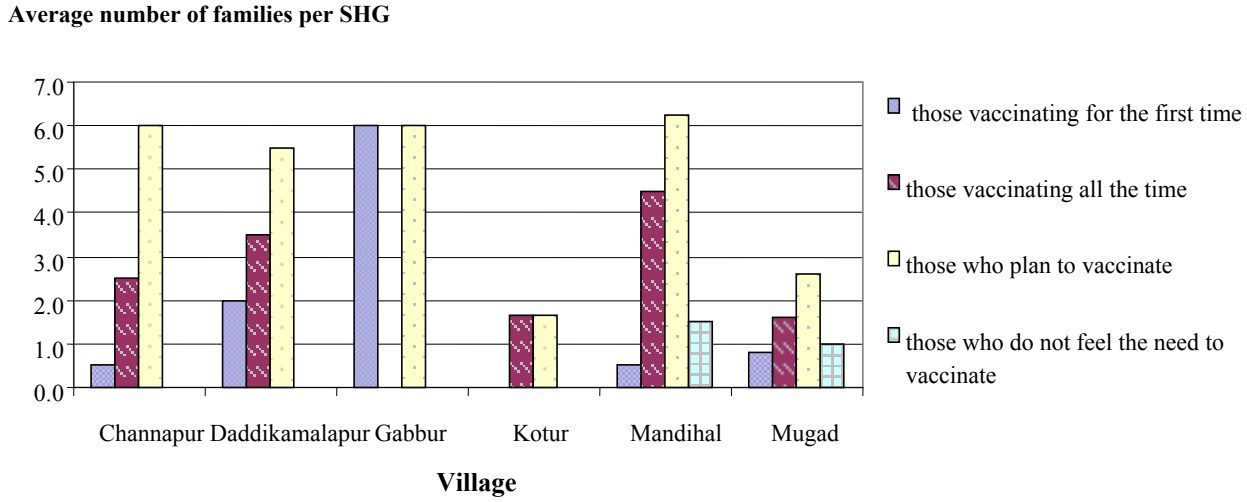


In total across the 18 SHGs, 43 families had expanded their livestock holdings and 55 had begun new livestock enterprises. 22 families had built poultry huts for the maintenance of improved poultry breeds, (14 of these waiting to acquire the new breed from the project and which can therefore be added to the 55 already started, giving an anticipated figure of 69) showing the level of interest in and importance of poultry production. The highest average numbers starting livestock production are in Mugad and Mandihal, both villages where there has been keen interest in initiation of new IGAs, and the lowest in Kotur, where many women find work in the local factories so that the demand for new household based IGAs is lower.

4.3.2 A change in attitude towards vaccinations and reduced incidence of disease

These were indicators selected to show the effectiveness of the vaccination programme set up as part of the livestock strategy.

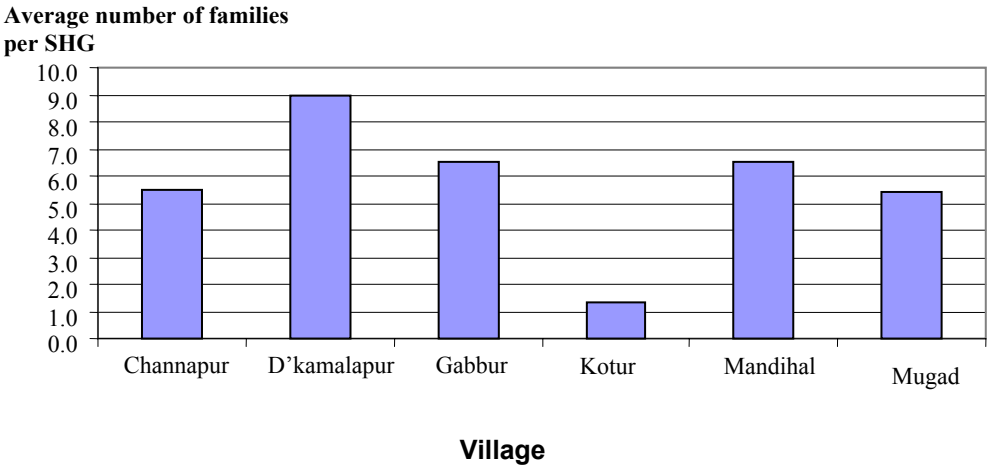
Figure 4-8 Change in attitude towards vaccination by village



In Kotur there was no difference between the number who have always used vaccinations and those who plan to continue, in contrast with Gabbur were none of those involved had vaccinated their animals before but all intend to do so in future. As Gabbur lies within the city boundaries it does not have access to rural services and so has not received the benefit of previous vaccination programmes. Now that awareness has been raised regarding the demand there for veterinary services, livestock holders can anticipate continued supply of this service.

Only in Mugad and Mandihal did a small number of people (11 from 9 SHGs) say they did not plan to use vaccinations. In all villages except Kotur, there was a positive difference between the number using vaccination already ('all the time') and those who plan to use them in the future. In all 78 members of the 18 SHGs (with a total of 228 members) say they will vaccinate in the future, that is 34%, as compared to the previous number vaccinating 'all the time' of 43 (19%). Unfortunately there is no total figure for number of members with animals with which to calculate a more comprehensive figure.

Figure 4-9 Average number of families who perceive a decrease in disease incidence.



In Kotur the average number of families with a perception of decrease in disease incidence is lower, perhaps because all involved were already in the habit of vaccinating their animals, so the change would not be as noticeable. Overall, out of 102 people answering this question 99 said there had been a decrease in disease incidence with only 3 saying there had been no observable change.

4.3.3 Can they obtain enough fodder?

Table 4-6 Fodder purchase

Number of families purchasing fodder	Frequency of fodder purchase			
Village	0	1	2	Total
Channapur		3		3
Daddikamalapur			10	10
Gabbur		12		12
Kotur	0	2		2
Mandihal	0	3		3
Mugad	3	6		9
Grand Total	3	26	10	39

4.3.4 Increased productivity (and sales)

Table 4-7 Number of families in different categories of milk production.

Original Indicator	Altered indicator	No of families
No of families with <10 litres of milk	Changed to <5 litres a day	63
No of families with 11-20 litres of milk	Changed to 5-10 litres a day	5
No of families with 21-30 litres of milk	Changed to >10 litres a day	3
No of families with >30 litres of milk	Dropped as this was unrealistic	0

As there is no previous point of comparison for the above data, or indeed any indication of the size of sub-sample that may be needing a sustainable fodder supply, it is not useful. The unrealistic measurement categories for milk production remained too high even after they were changed, and only in Gabbur, where more serious levels of milk are produced, did anyone exceed the minimum level of less than 5 l per day.

Table 4-8 Number of sales of chickens, sheep and goats.

Village	Number of chickens sold	Number of sheep sold	Number of goats sold
Channapur	0	0	0
Daddikamalapur	0	1	5
Gabbur	0	0	1
Kotur	0	0	0
Mandihal	24	0	6
Mugad	37	0	0
Total	61	1	12

Table 4.9 below shows the results of the records made by participants in the dairy activities in Gabbur, as part of the trial to increase participation in the monitoring process for this strategy. However well collected, this data has the same problem in that another round must be counted before any change can be detected. However, the advantage of involving the participants in the design of the measure is clear, as the categories of milk production are far more realistic than the above.

Table 4-9 PM&E results from Gabbur cattle owners, mainly from Siddarudda SHG. Change in importance of Dairy Activities monitored by recording numbers of families in different categories of numbers of animals held and levels of milk production on yearly basis (every Oct/Nov).

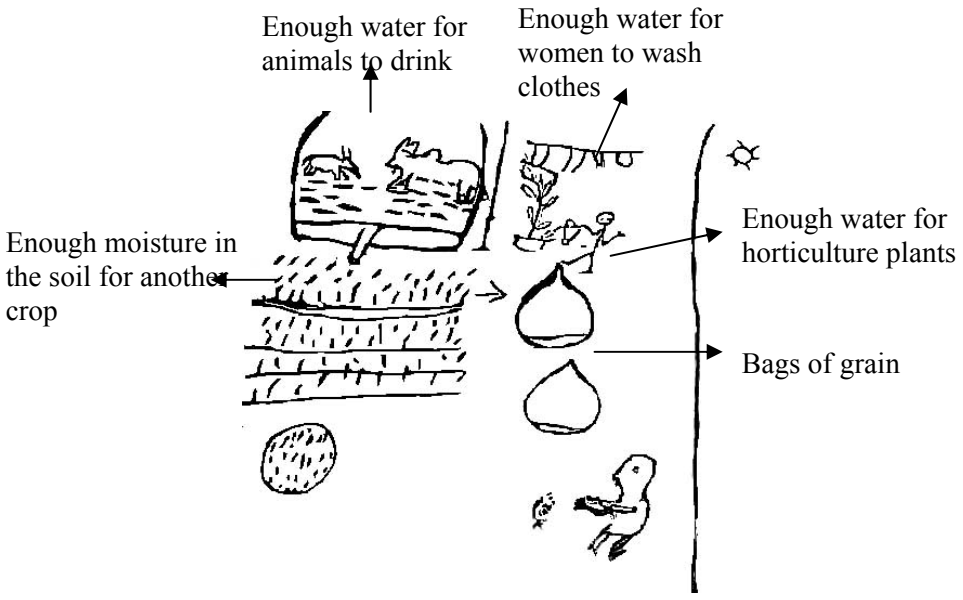
Number of animals / milk produced (litres)	Number of families and Animals ownership	Number of families and level of milk production
One to Two	17	6
Three to Four	11	7
Five to Six	9	11
Above Six	3	9
Total	40	33

4.4 Tank restoration

Also see Annex M. The data for the participatory indicators was not collected, mainly due to a lack of any indication of improvements with the continued drought at the time at which measurements had been planned. Hence results for this strategy are restricted to those from the PM&E trial in Kotur, described here.

Box 1 PM&E results, Kotur; Observation of effects of tank and bund restoration.

While measuring the indicators for the first time the SHG members were a little hesitant as there had been no rain and therefore no water in the tank. They were more interested in talking about how they could increase the tank area rather than the indicators (as there was nothing to measure). By the time of the second round of measurement there had been some rain and they could make an assessment.



In the second round, though there had been some rains the farmers felt that there was still not have enough water in the tank, only about three feet of water. There is enough water for the animals to drink. They also said that there was enough water for the people who had planted horticulture plants to water their plants. While they felt that there was not enough water to irrigate the land for field crops, the farmers felt that the water in the tank would keep the surrounding land moist and that would extend the area in which it was possible to get a second crop. The women were able to use the tank to wash clothes.

To do the actual measuring for the other indicators the farmers felt that the trees are still small and therefore they do not yet give fruits. Therefore they could not measure the number of fruits. They also could not count the number of bags of grains they got because the crops still had to be harvested. So they drew piles of grain stacks instead. But they felt that they could get some bags of grains this time.

They also felt that this year so much water has stayed in the tank because they repaired the tank bund. They also felt that they had to grow grass on the bunds. This would help strengthen the bunds and they would also have fodder.

4.5 Village Forest Committees (VFC)

Also see Annex U. The two participatory indicators selected by the team for this were;

- *Decrease in grazing of forest lands and*
- *Regular meetings of the VFC*

For some reason no data were made available for these. Apparently neither received any response. There may have been insufficient attention as to how these two would be measured, and perhaps there was little participation of the VFC in determining the indicators

Therefore we have to rely upon the PM&E trial done in Daddikamalapur where 20-25 people from the village discussed the issue, details below.

- The VFC members recollected what they had drawn. Empty hill, no trees. We planted trees and we got wood, fruit and more water in the tank. We also got more fodder.
- Everyone together has looked after the tank. A measurement was done again when they had said what the changes were. People were taking less firewood from the forests.
- After the biogas and the new stoves have come (see Annex U) people have started using less firewood. They have also started having meetings with the forester.
- In the beginning the people had said that they would put a stone to measure the level of water in the tank but they have not done so.
- They feel that firewood cutting has come down because there is an awareness generated through the VFC, a strong guard, the new stoves and the biogas.

In addition, at the time of the discussion they feel that is there is a 10 percent increase in the tree cover because of the rains (in 2004, see Annex B). Another reason is that the forester is strict and does not allow the people to take carts and tractors into the forest. People are allowed to carry head loads but not allowed any vehicles. Also the Forest Department has planted trees this time. The trees planted by the department are Acacia trees and other forest trees and not trees that give fruit that the people can collect. The trees have also been protected because the Forest Department has put up a fence and also dug trenches.

They also have more fodder this year because of the rains. Also again because the animals are not going inside, due to the fencing, the fodder has grown. The people are allowed to cut and carry it back to their village. The haystacks have gone up from 2 to 5 and the woodpile has gone up from 3-4. But they say fruit has remained the same or may have even gone down.

For the tank they said that the water has increased due to many reasons. One is that there were rains this year (2004). Also with that the rainwater could be channelled along the canal that they had built. They say they have achieved 90 percent of the work they planned to do. There is 60 percent more water in the tank. The water has also increased because they de-silted the tank and they had repaired the tank bund (see Plates B19, B20, Annex B).

Though it has been the forest department that has done most of the work the VFC members said that they had had discussions with the forest department. They said that they did not have any money and that they could only discuss with the department through the VFC. They have also said that though now there will be more trees they will reduce cutting down trees and will not give permission to others to cut down the trees. They have also decided that they will tell the forester that more fruit bearing trees should be planted in the forests.

4.6 Self Help Groups

Also see Annex C, Chapter 5 and Annex F. There were a total of 11 participatory indicators for this strategy, 7 for monitoring SHG development (Regularity of Meetings, Regularity of Saving, Numbers of loans, Timely repayment of loans, Courage to visit bank and officials, Demand for training and ideas for IGAs, Increased participation in decision making) and 4 for indication of effects of SHG membership on livelihoods (More households educating children in schools, Number of new income generating activities (IGAs) started by SHG and individuals, Reduction in use of loans for non-productive purposes, and more for developing IGAs, Decrease in reliance upon money lenders)

4.6.1 Regularity of Meetings

Information about regularity of meetings and savings were possible to obtain through the regular SHG records. Actual numbers of meetings held were compared to the planned number for each SHG and examined by village. Figure 4.10 below shows zero as the planned number, with bars indicating positive or negative deviation from the number of meetings planned.

Eight of the 18 SHGs failed to meet on all the planned dates, those in Mugad and Daddikamalapur only by a few. In Mandihal and Kotur the problem seems more important and more general in the village, and to a lesser extent in Channapur.

Figure 4-10 Showing influence of each SHG on difference between planned and actual number of meetings for each village

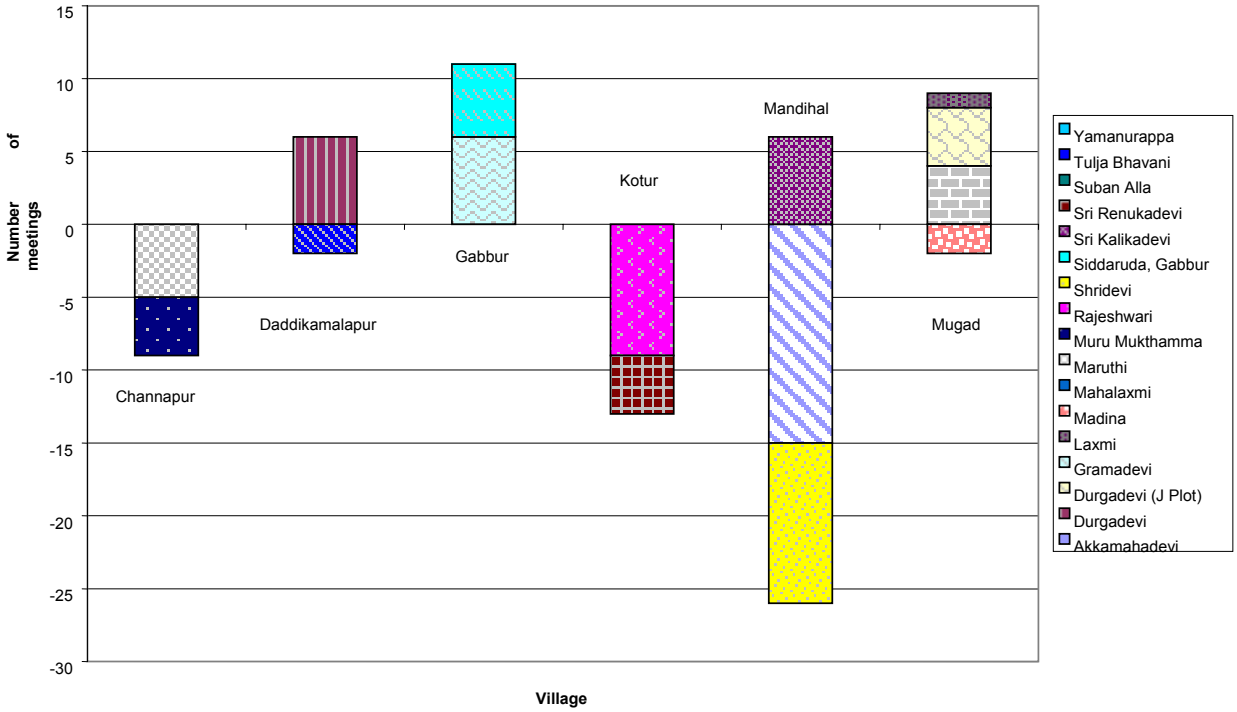
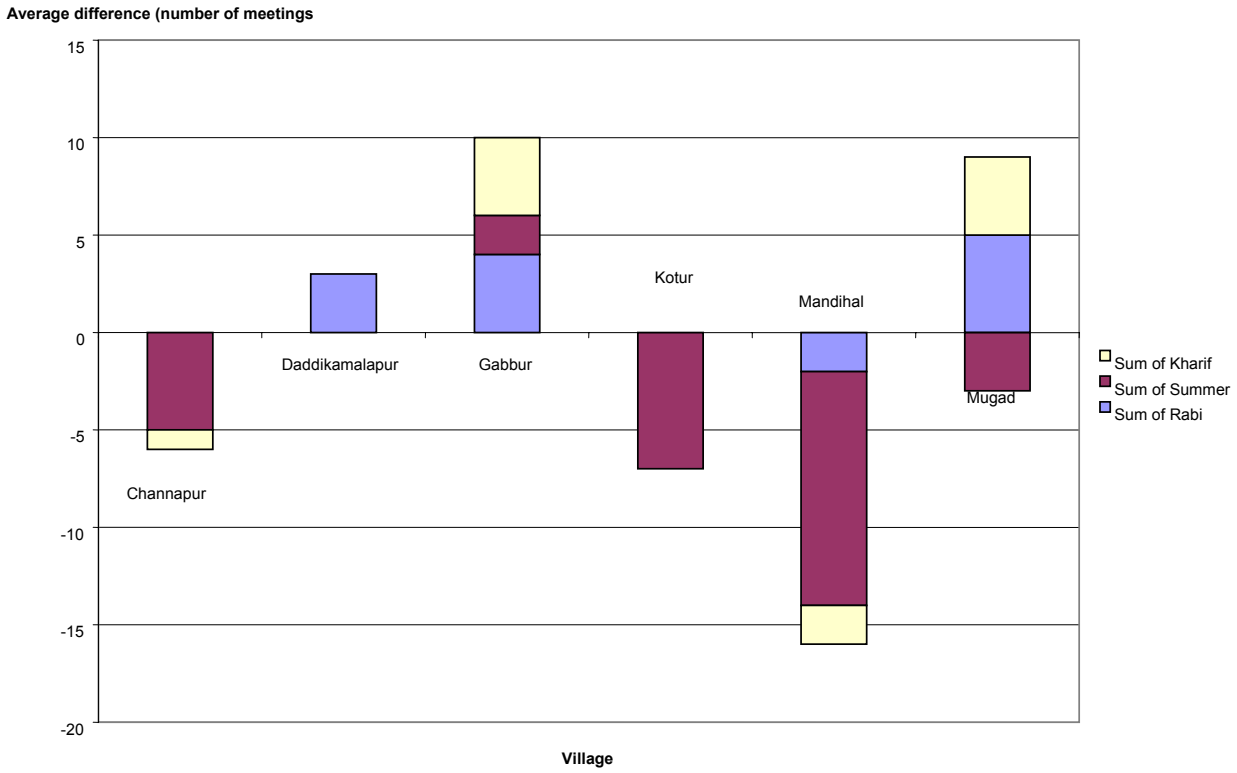


Table 4-10 Reasons given for missing meetings

Village	Explanation given by Community Organiser	Reasons given by SHG members for missing meetings
Channapur		Festivals , People go out of town , Death Training, Miss the bus to the village, People are working Person keeping records is out of town
Daddikamalapur	Few meetings missed. In this village all are of one caste so all ceremonies are within the village – they don't travel a lot.	Festivals , People go out of town, Some one dies Go to the market (santhi)
Gabbur	No meetings missed. Even the town is near can go and come back early same day so has no effect on meetings.	Rain and meeting place gets flooded, Death
Kotur	Many women involved in night shifts at the factory, and so meetings are difficult to keep to.	Member is sick, Death, Domestic Problem Work in the fields even at night, Night shift in factories No place to meet
Mandihal	Shridevi SHG: there is a big problem of drunk husbands, so they find it difficult to save and don't attend the meetings. Usually they have the meetings in one ladies house, but when her husband gets drunk he is offensive and the meeting can't happen. He has a job in a gov. office and every one knows, so they meet him from the bus and persuade him to drink with them and pay for their drinks too. He earns 600 rupees a month but it all goes on drink. Akkamahadevi: This SHG haven't yet 'got into it'. They are a higher caste, although still poor, they are more interested in attending social functions than SHG meetings	No money to save, Only few people come for meetings Meeting clashes with the VDS meetings Sickness, Death Person keeping records is out of town, Members out of town
Mugad	The SHGs have been meeting regularly except for a few meetings. Meetings are regular because the women find it better to meet and discuss with each other about their work and family issues weekly. Also there has been previous IDS input here – SHGs more experienced.	Death, SHG member involved in a family fight Festivals ,Weddings. Record keeper gone out of town No electricity, Harvest time when they have a lot of work. Housewarming ceremony of sangha member's new house. Work late, Not many people come.

Figure 4-11 Showing influence of season on regularity of meetings in the different villages



In the bar chart above the same difference between actual and planned meetings has been cross related to season in which the meetings fall. Most of the missed meetings fall in the summer period. The two factors contributing to this as explained by the COs are:

i) that there are a lot more festivals and functions in the summer, when the agricultural work is less

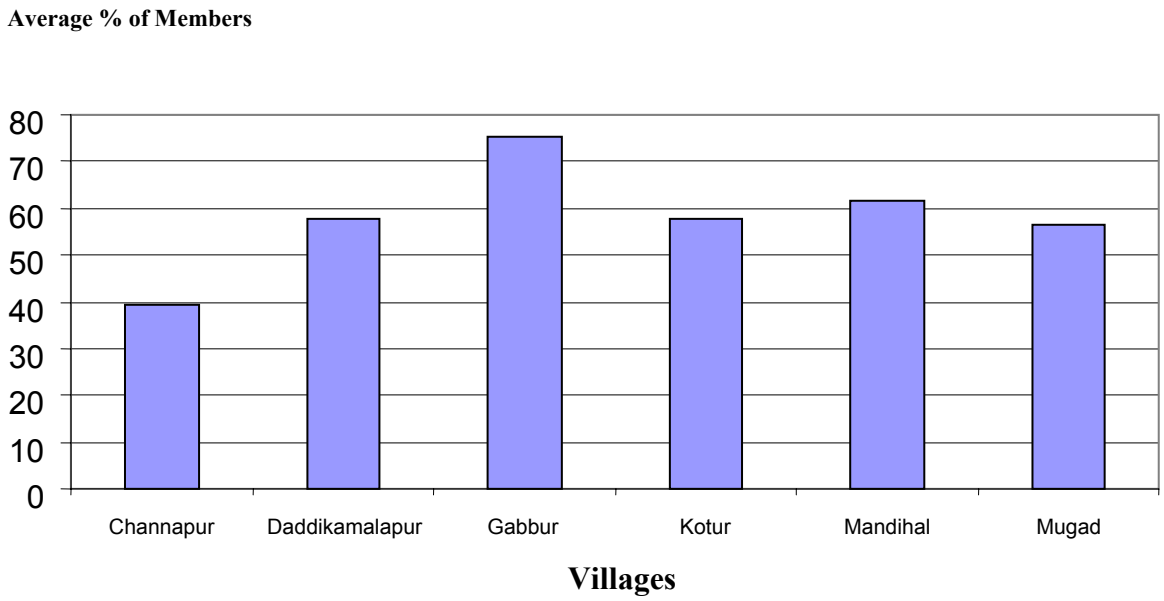
ii) further from the city in the case of Channapur, Kotur and Mugad – effect of many going to work in the city in summer when the agricultural season is over. In Mandihal, summer is when quarrying work is available.

The exception to missed meetings in summer is in Gabbur, where due to the availability of irrigation with sewage waste water, crops are grown in the summer so work is available in the village in that season.

4.6.2 Regularity of Saving

This was measured by counting only those who saved on the planned date. Late savers were not counted, and some SHG members are not happy with this measure as they feel lateness does not matter. However it is supposed to indicate capacity to save regularly, (including discipline, commitment or control over the rupees).

Figure 4-12 Percent of members who save regularly



The stone quarry in Mandihal (see Annex T) gives regularity of income to women and this combined with the fact that their 'family situation is worse' means that as soon as they get the money they give it to the SHG (before someone else gets their hands on it). Because of this even though the Mandihal SHGs miss a higher proportion of their planned meetings than other villages, they still save a little more regularly. The village with the highest level of regular savers is also the one closest to the city, Gabbur, where people have a greater chance to trade goods and earn a regular income and where there is the lowest proportion of very poor people (Figure 1.1). As none of the villages had SHGs hitting 100% for regularity of saving, the reasons for missing savings are given below for each of them. The main issues appear to be security and regularity of income, and domestic harmony.

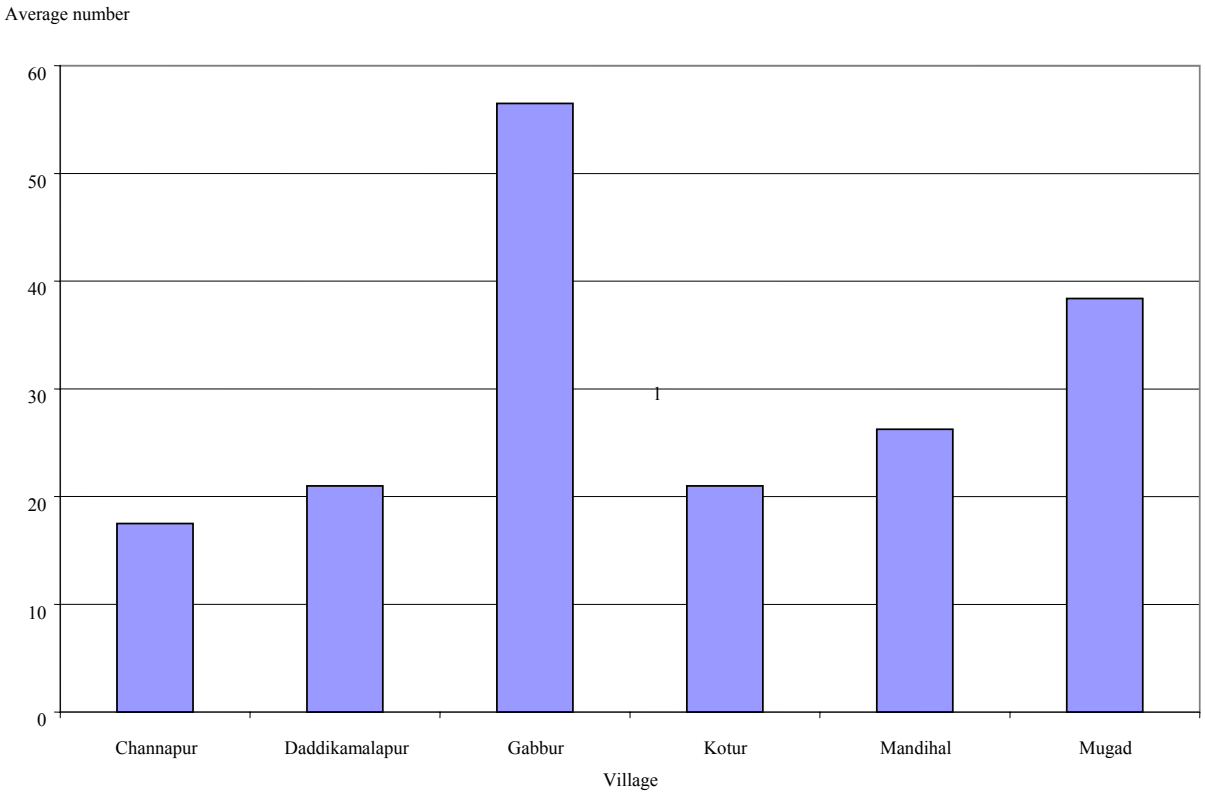
Table 4-11 Reasons given for not saving on time

Village	Reasons given for not saving on time.
Channapur	Have not attended the meeting
Daddikamalapur	Have not attended the meeting No money due to no work Don't get paid on time Fight with husband (who then does not give her the money to save) Irregular work so don't have money all the time
Gabbur	Problem at home
Kotur	Don't get paid on time Drought led to no crops so no money No work No money Have not attended the meeting Problem at home
Mandihal	If anyone goes out of town We do not have enough work. Most of us in this SHG have drunk husbands who spend all the money. Have not attended the meeting Irregular income from irregular work
Mugad	We do not have enough money Extra expenses for weddings, household Not enough money as no work Have not attended the meeting Don't get paid on time

4.6.3 Numbers of loans

The average number of loans from all sources (except money lenders) taken per SHG was 32, with only 1 in 32 (3%) being from the bank, the rest were from the SHGs own resources. With an average number of 13 in a SHG, that gives an average number of loans per member of 2.4, although there is no indication of how equitable the distribution is with this measure alone.

Figure 4-13 Average number of loans made by SHGs



4.6.4 Timely repayment of loans

This indicator proved difficult to measure as the loans given had different repayment periods and members would be given extensions for special circumstances and so on. It was not as straight forward as anticipated. The women felt that it was not important as every one repaid as quickly as possible to avoid fines and interest. As long as the loan was repaid, that's all that mattered. This made the information more difficult to extract and consequently it was not collected.

4.6.5 Demand for training and ideas for IGAs

This was added after the COs thought that it showed a change towards a more positive attitude about opportunities for improving livelihoods. In Gabbur the selected SHGs have never made demands for training and this is probably due to the fact that there are already opportunities there with the proximity to the town. The demand for training and ideas has increased in Daddikamalapur, Mugad and Mandihal, but declined in Channapur and Kotur. Kotur has less demand for alternative skills because of the factories.

Figure 4-14 Number of demands for training

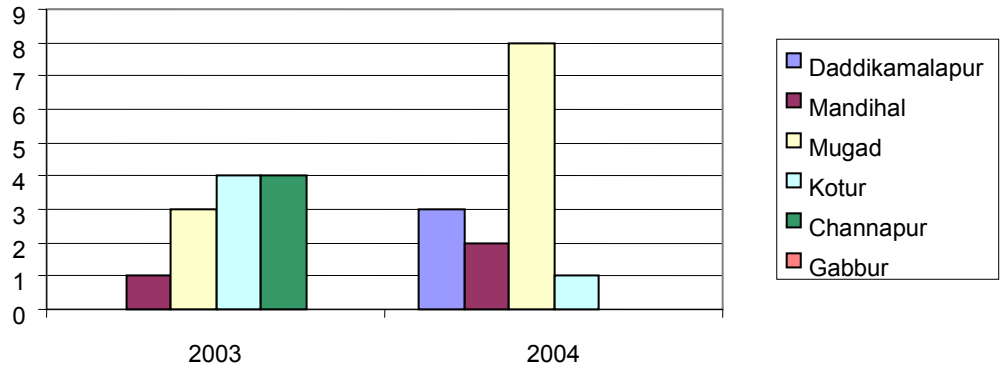


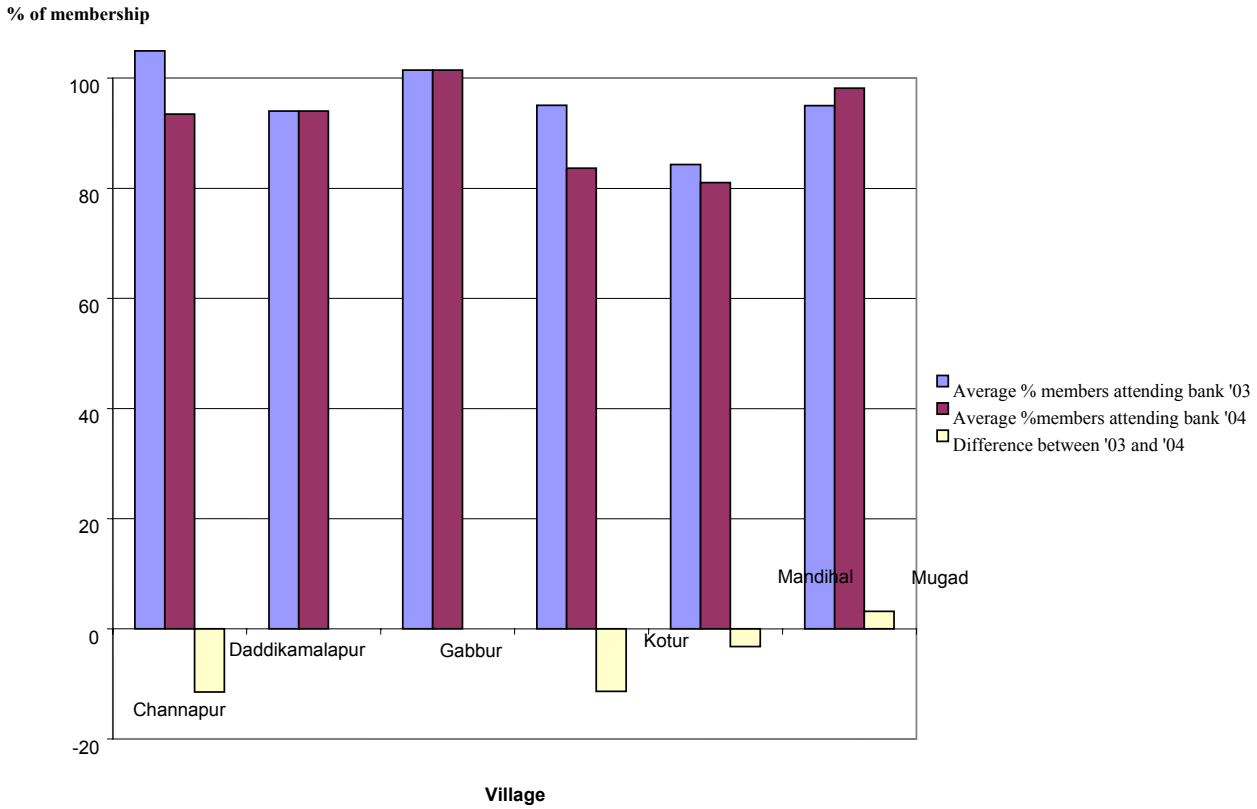
Table 4-12 Means and differences between 2003 and 2004 for demand for training

Village	Total demand	Mean demand	Change in level of demand	
Daddikamalapur	3	3	+3	Increase
Mandihal	3	1	+1	Increase
Mugad	11	4	+5	Increase
Kotur	5	2	-3	decrease
Channapur	4	2	-4	decrease
Gabbur	0	0	0	same

4.6.6 Courage to visit bank and officials.

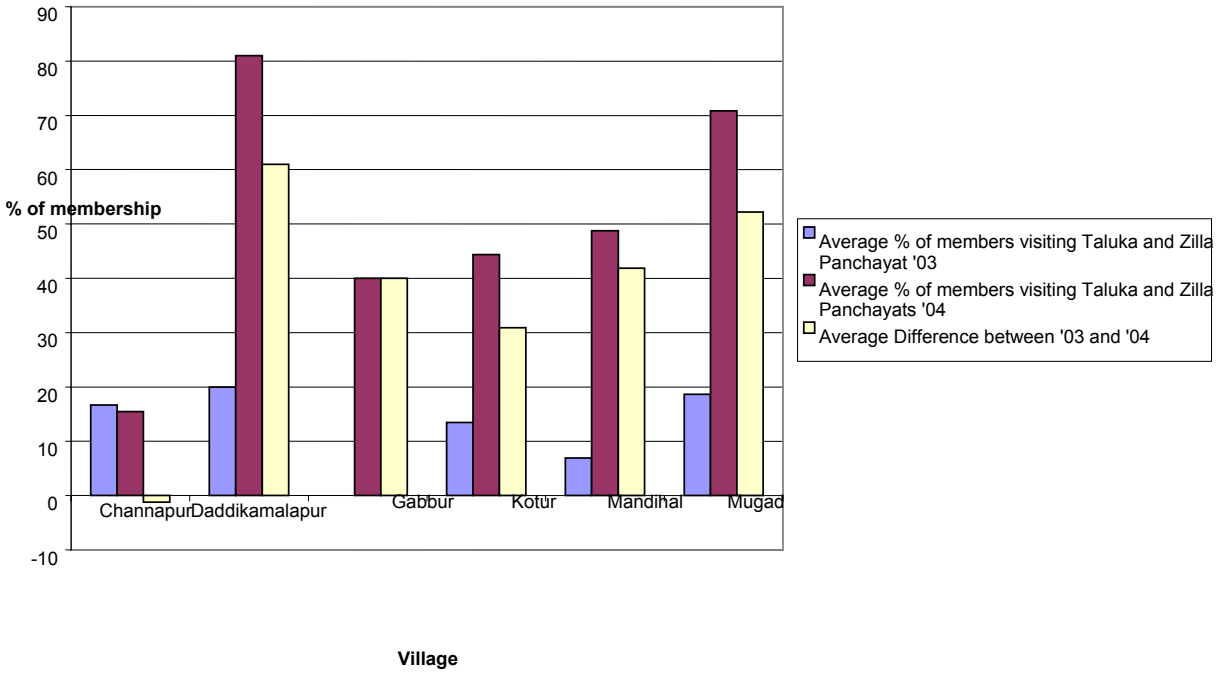
All SHG members have to take their turn in going to the bank. This builds up their confidence in meeting officials. The women are keen to say how they would not have done such a thing before but would have just stayed in the house. Now they drink tea with the bank manager in his office! Some of the SHGs have been approached by the banks themselves who try to persuade them to take a loan, saying they can repay as slowly as they need. The women have rejected the offer as they do not need it with their SHG funds and they know it is more expensive.

Figure 4-15 Proportion of membership who visit the bank



Over 80% of all SHG members have at one time visited the bank with Gabbur and Channapur reaching 100% (Figure 4.15). However the percentage has not risen but has decreased a little in Kotur, Mandihal and Channapur, the same villages that had more difficulties in meeting regularly. The proportion of members carrying out the more intimidating task of visiting the Panchayat offices has increased between 2003 and 2004, by between 30 and 60 % (Figure 4.16), except for Channapur who still have less than 20% of members with this experience as compared to the between 40 and 80% of SHGs members in the other villages. For Gabbur the data refer to visits to HDMC, this village falling within its jurisdiction. BAIF has traditionally eschewed contact with Government (although during the course of project R8084, this attitude moderated somewhat), which may explain the low figures for Channapur.

Figure 4-16 Change in the Proportion of members attending the Taluka and Zilla Panchayats



4.6.7 Increased participation in decision making (in general)

This data is based on each member indicating whether or they feel they have participated more in decision making in general (in the home or community). The results are described in the chart and explained by the CO in the table below.

Figure 4-17 Difference in Participation In Decision Making

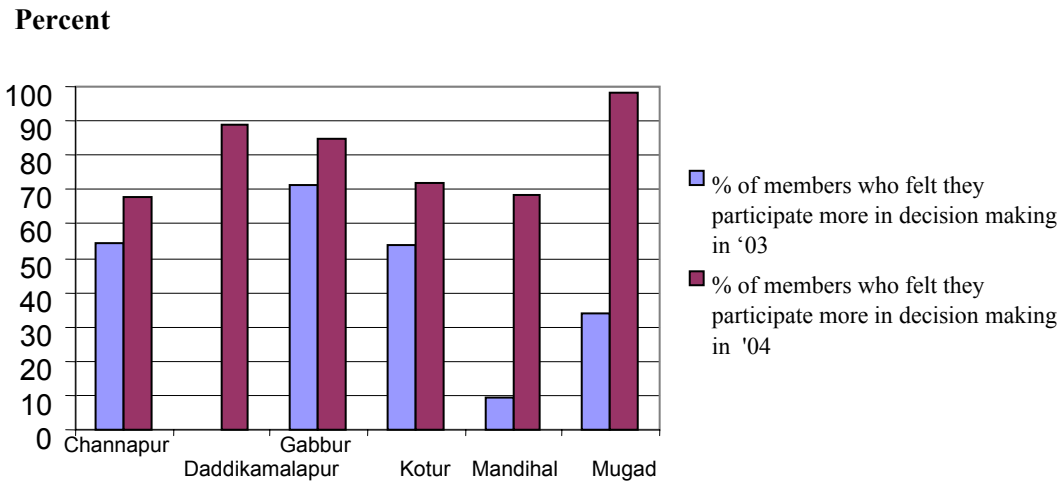


Table 4-13 Comments from the Community Organiser about participation in decision making.

Village	COs interpretation of graph – difference in participation in decision making.
Daddikamilapur	In the first year there were 3 men who would come to the meetings and would dominate the proceedings. The CO asked them to stop coming, and explained that they should let the women think for themselves. They started a mans SHG and left the women to themselves. Since the women have started to access bank loans and start IGAs the men have changed their attitudes noticeably towards the women's abilities to act. If the CO was assessing them for participation in decision making he would not give them such a high mark, but he thinks that they are smart and does not see the changes within their households.
Mandihal, Mugad	In these villages the 2003 level of participation in decision making was also low, but both have improved considerably (by about 60% of members) by 2004. The CO reports that these SHGs have been actively saving, banking and accessing loans for IGAs. This may have resulted in changes in household dynamics which makes the women feel they are taking more of a role in decision making, combined with their own decisions made within the SHG.
Gabbur, Channapur and Kotur	The two mens SHGs are included here, but even so it is anticipated that a higher proportion of women in Kotur and Gabbur would be able to make a contribution to household income and therefore start with a higher level confidence and status than others. Considerable improvements have still been made for the same reasons as above.

Table 4-14 Participation in decision making – reasons given by SHG members for being positive

Channapur	We take decisions together in the SHG
Daddikamalapur	Now feel more like participating
Gabbur	All of us discuss in the SHG. People used to say things if we talked with the men. Now we talk with them
Kotur	Participate in every aspect of decision making at home like children's education, health issues or any purchase Men consult other family members in any decision making Participate in every aspect of decision making at home. other members of the family at home take their opinion as loans are easily available for them through the SHG
Mandihal	Now everyone talks and decides. We used to sit in a corner but now we also talk. If we have any problem we bring it to the SHG and we discuss it here. Access to money has helped us participate more in decisions. If there is a problem at home we take a loan and settle the problem. Now we participate in every aspect of decision making at home
Mugad	We used to ask other people what we should do. Now we make up our minds and convince other people to take up our decisions. We are now more confident because we know we have access to loans and support from the SHG. We discuss with our family members before taking any decision, but we feel we participate more now than before. We feel like we have passed high school because of our training and because we have learnt how to sign. Through the SHG we have gone out and so we have more information and we can talk. After the SHG formation women have become more aware and now participate in every aspect of decision making at home. Now they feel that the other members of the family at home take their opinion as loans are easily available for them through the SHG

4.6.8 Educating children in schools

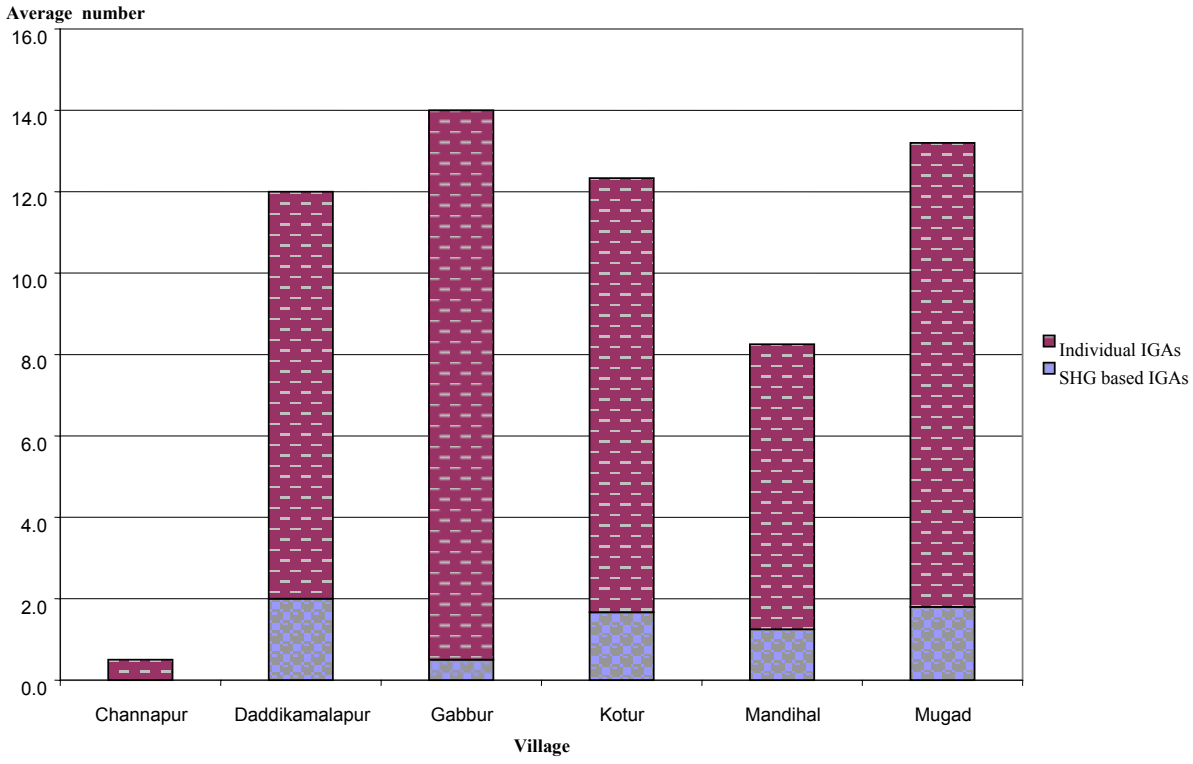
Although data was collected to allow the calculation of proportion of school age children attending school, it proved confusing (for both SHG members and project staff) to detect change over the two periods measured.

Interestingly however, a higher percentage of school age girls (77%) were found to attend school than boys (76%) amongst this sample of 18 SHGs.

4.6.9 Number of new income generating activities (IGAs) started by SHG and individuals

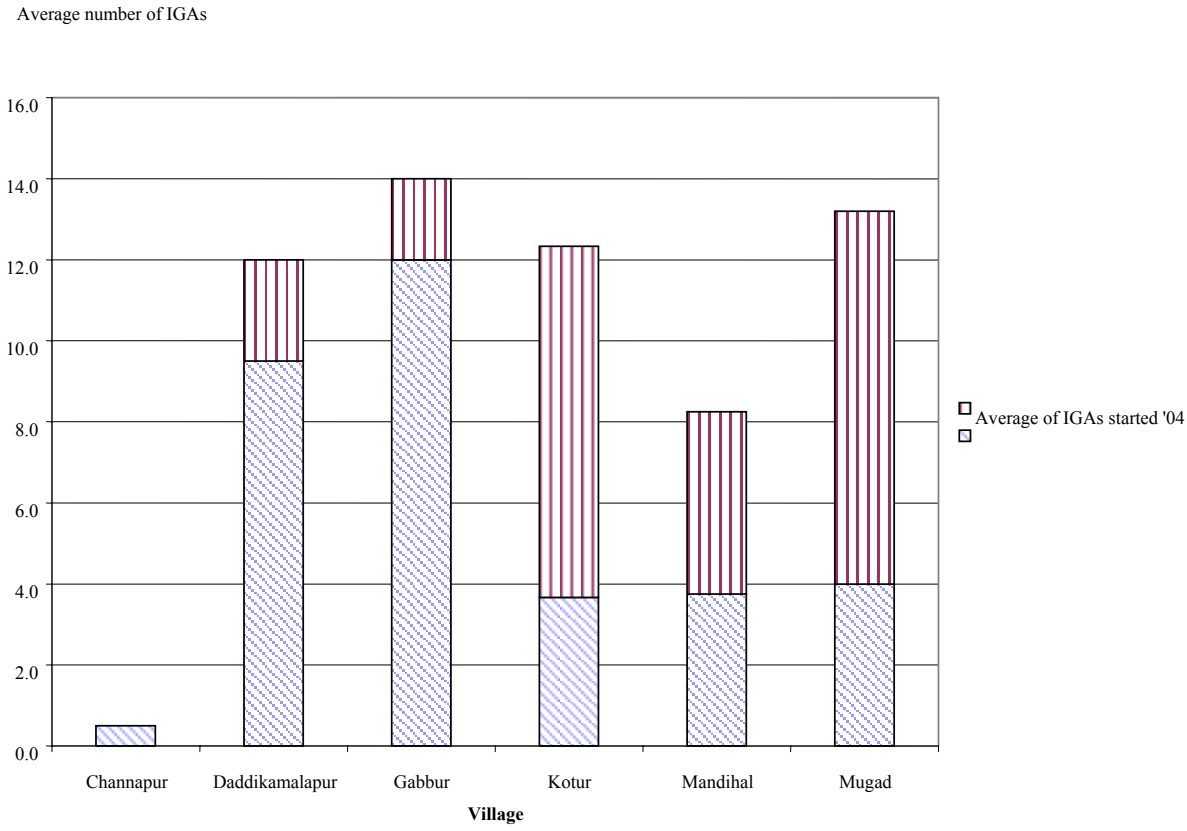
Only 1 IGA has been started in Channapur but in all other villages the average number is higher, between 8 and 14, most of these being individual activities, while a few are SHG based activities such as vegetable trading and soap powder making.

Figure 4-18 Average numbers of New IGAs started by village



Where fewer IGAs were started in 2003, there were more started in 2004, as the SHGs became more established and exposed to possibilities, and vice versa, where more had been started by 2003, fewer members were interested in starting ones in 2004. Overall there was no difference between the average number of IGA started per SHG in 2003 (5.5) and 2004 (5). In total between the 18 SHGs and 228 members, 189 new IGAs have been started which on average is 0.8 per member.

Figure 4-19 Average number of IGAs started in the SHGs of each village, comparing '03 and '04.



4.6.10 Beneficial change in the source and use of loans

This incorporates a reduction in the use of expensive credit, particularly money lenders whose rates can be crippling (typically 10% per month). To some extent this includes the banks whose loans can be very useful but interest rates should be avoided for certain types of 'unproductive' loan. The proportion of loans used for productive purposes (those that intend to generate income) rather than for consumption purposes (those used to pay for short falls in basic needs, high priority costs such as school or health fees and for emergencies and ceremonies) has been put forward as an indicator for increase in well being. As people's livelihoods improve, they should rely less upon loans for consumption and invest more.

Figure 4-20 Source and use of loans

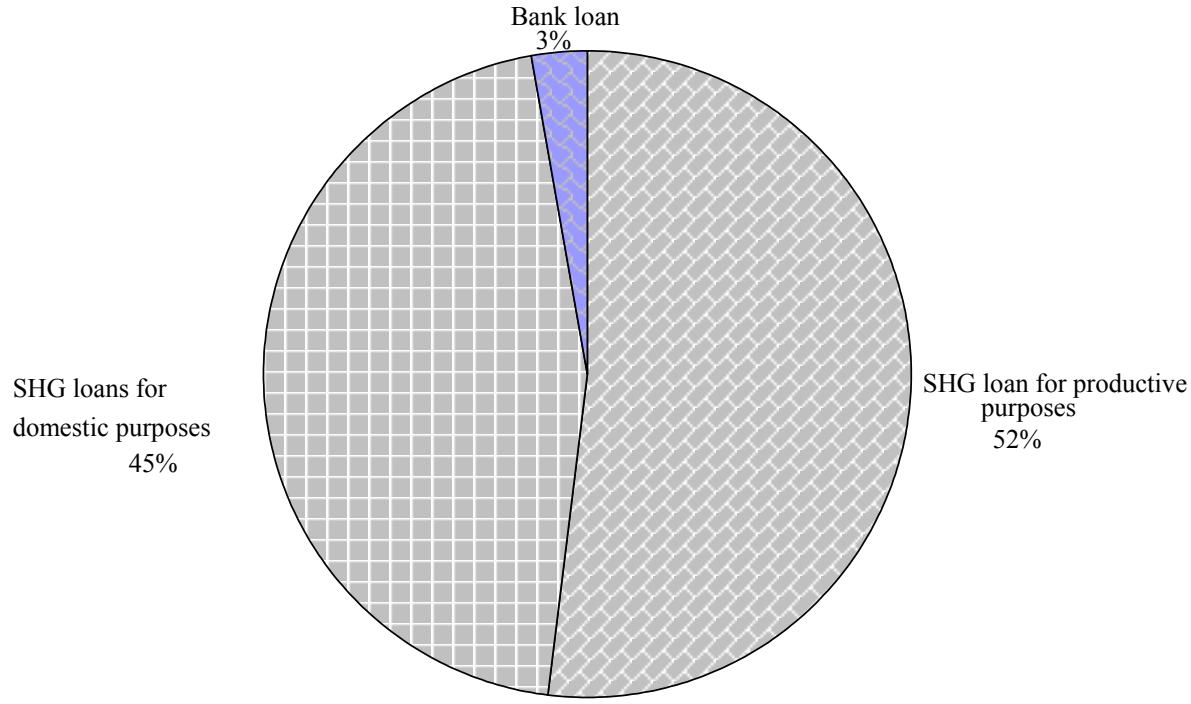


Figure 4.20 shows that only 3 % of the total number of loans come from the bank, the rest are made from SHG resources. On average a slightly higher proportion (7%) of SHG loans are being used for productive purposes rather than for consumption. Examples of the way loans are used has been recorded in the table below for each village. There have been small increases of between 1 and 13 % in the average proportion of loans used for productive purposes in 4 out of the 6 villages. Only in Channapur and Mugad has there been an increase in proportion of loans used for consumption. The overall trend is positive despite the fact that the region has suffered from an extended period of drought, which may have affected the well-being of the latter villages to a greater extent. However when looking at the list below, it may be that this division between production and consumption is not sufficiently sensitive, as expenditure on home improvements and education fees should be considered as positive investments that result in improved livelihoods.

Figure 4-21 Comparing mean proportion of SHG loans that were used for productive purposes (as opposed to consumption or domestic purposes) in 2003 and 2004

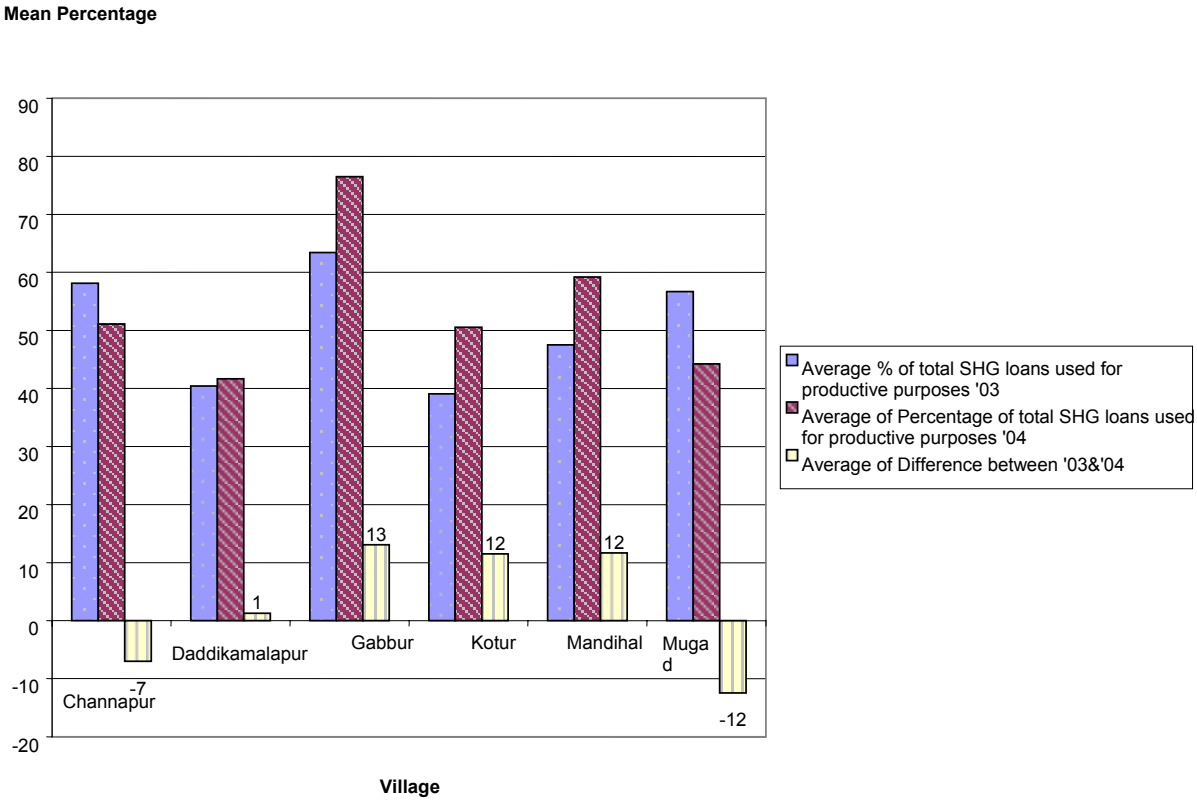


Table 4-15 Description of how loans were used.

Village	Consumption	Production	Bank
Channapur	family problems, ration house repair school fees	cow vegetable vending agricultural inputs Blower for the blacksmith.	
Daddikamalapur	2 School fees 2 Festivals, Wedding 1 family problems 1 house	2 Buffalo, 1 Goat, Blacksmith equipment	buffalo, goats, ox, school fees, repay house loans beedi/tea shop, ram, repay loans, fodder
Gabbur	family, weddings, festivals house.	fruit vending, seeds, buffalo, fodder, cow and shop	
Kotur	NA	NA	NA
Mandihal	School fees, 2 weddings, house repair hospital. book a plot family problems	Loans for agricultural inputs, goats, cows, to buy mango saplings and for carpentry equipment. bulls, Ox, and poultry.	
Mugad*	2 buy ration for the house 1 to pay school fees 2 buy medicine / pay hospital 1 family problems, 1 to repay other loans, 2 for marriages 2 to repair or construct houses; toilet, 1 to buy a TV,	buy sewing machines get their grinding machine repaired buy a tire Buy ration for the shop. agricultural inputs, crop insurance, to buy bullocks, to help their businesses such as vegetable vending, flower selling and construction goat, poultry, agri inputs	IGAs TV cow, buffalo, Ox, goats, used it for our businesses such as vegetable vending, flower selling, bangle selling. build her house.

* The CO explains that in Mugad, 3 SHGs are involved in the MOVE strategy, and are busy with this and fewer people have taken loans for IGAs on an individual basis than may have happened without their involvement in this other intervention.

4.6.11 Decrease in reliance upon money lenders

The pie chart shows that 10 SHGs have seen a reduction in the use of money lenders by its members between 2003 and 2004; the data table shows that this represents 29 fewer families dependent on this source of credit. Over the 15 SHGs that have not seen an increase in use of money lenders only 3 of the members' families still owed them money in 2004, but had not taken out new loans. There was a very definite opinion that money lenders would not be used due to high interest rates (10% per month) and the fact there was now an alternative source.

Figure 4-22 Change in use of money lenders by SHGs members

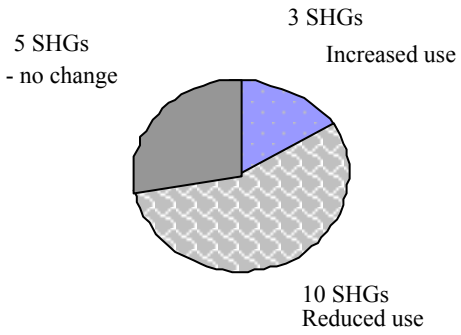


Table 4-16 Change in the use of money lenders amongst the SHGs

Change in use of ML	No. of SHGs	% of SHGs	Difference in numbers of members using money lenders between '03 and '04	Numbers of members in the SHGs still using ML.
Increase	3	17%	+8	21
Reduced	10	56%	-29	3
No change	5	28%	0	0
Total	18		-21	24

The following table looks more closely at the 3 SHGs who have seen an increase in use of money lenders. Of the 21 families involved, 17 are from one SHG based in Gabbur. These are livestock farmers and explain that SHG are not suitable for their needs. Others explain that they already have SHG loans and can't get more until they have repaid the previous ones.

Table 4-17 Reasons for still using Money Lenders.

SHG name and village	**Number using Money Lenders**	**Reason for still using Money lenders**
Maruthi, Channapur	2	Only two people have taken loans. One to build a house and the other for his brother's marriage
Siddaruda, Gabbur	17	One woman took a loan from outside to repay her SHG loan when her cow died. Nearly all of them have taken loans from moneylenders. They have taken it to lease in land. They feel that because they have buffalos they need to take money from moneylenders as they could die any time and they cost a lot. Also if they already have a loan in the SHG then they cannot take another loan till they repay the first one.
Shridevi, Mandihal	2	To pay electric bill & agricultural purposes - already have SHG loan & have to repay that first. There is not enough money in SHG for needs.
Total	21	

In Mandihal a new more participatory method was tried for measurement of *number of loans taken and their use*. The women were able to indicate dots against their names on a chart for numbers of loans taken and number of loans repaid. They indicated the purpose of each loan with a picture and drew these in two lists according to whether they thought they were for productive or for consumption purposes. The results were copied and are shown in the table below.

Table 4-18 PM&E results from Mandihal, Kalikadevi SHG; Numbers of loans taken and repaid and their use.

Name of member	*Loans taken*	*Repaid*	*Production*	*Consumption*
Kalavva	5	3	Mango saplings, buffalo, shop, fertilizer (4)	Hospital (1)
Kamalavva	4	3	Fertilizer, to plough the field (2)	Hospital, slate (2)
Gangavva	3	2		Vessel, groceries, wedding (3)
Basavva	2	2		
Sujata	3	2	Poultry, harvesting of grains (2)	House tiles (1)
Vimalaxi	3	2		
Malavva	3	3	Goat and fertiliser (twice) (3)	
Iravva	2	1	Cow (1)	School fees (1)
Shantavva	3	3	Tailoring machine, to buy mango saplings (2)	Hospital (1)
Ansavva	1	0		A cupboard to give her daughter who got married (1)
Renavva	2	1	Fertilizer (twice) (2)	
Iravva H	1	1		Stones to build house (1)

The total number of loans were 32 and of these 23 have been repaid, the remaining loans still being within the agreed time limits. 11 had been for consumption and 16 for production purposes.

In Mugad the Laxmi SHG was selected for inclusion in the PM&E trial, and they wanted to monitor SHG development with 3 indicators, regularity of meetings, courage to contact officials and establishment of IGAs. After exposure to the idea of using a ladder scale, members decided to assess their progress with each of their chosen indicators using a ladder scale of one to sixteen ‘annas’, where they were at zero when the SHG began.

Box 2 PM&E results from Mugad, Laxmi SHG; Improvements in regularity of meetings, courage to contact officials and establishment of IGAs

For regularity and attendance of SHG meetings they said that they were at 8 'annas' (middle line). This included having meetings regularly and on time which everyone attends (equivalent to a subjective 50% improvement)

For courage they felt that they are going to the bank on their own and that they can meet officers. Also if anything happens then they can talk to the police. They gave themselves 12 'annas' (upper line) (equivalent to a 75% improvement).

For IGAs they felt that they had done as much as they could for now but there was a lot more that they could do. They gave themselves 6 annas (lower line) One problem is that they are illiterate, and unwilling to take big risks to start IGAs and are still unwilling to give loans more than Rs 2,000 (equivalent to a 37% improvement).

Table 4-19 Showing Assessment of Indicators According to Criteria.

SHG Development monitoring Indicators.

Indicator	Is it useful to us to answer our research questions?	Is it useful to the SHG or community as a learning tool?	Valid	Sensitivity	Ease of measurement	Believable	Sustainable
Meet regularly	It measures the progress of SHG developme nt but not the success of the SHG strategy 2	3	3	3	3	3	3
Save regularly[1]	2	1= They say it doesn't matter – if they miss one week then they'll make up the next.	1 = Not really because it doesn't show whether they mange to save, just whether they save on the right day	1 = only if they've been missing savings over a long time	1 = possible but not easy – difficult to go through each person and see if they'd saved in all meetings. Arduous.	1= Not if you're a SHG member but yes if you don't know the situation.	3 = they're already recording the information it's the way it's analysed that's in question.
Demand for training and ideas on IG activities	3 yes, it shows interest in strategy and guides provision.	*1* How will they use this?	*2*	*2 infinite training not really necessary*	*3*	3	1
Number of loans per SHG	*3*	*2* depends on demand	*3*	*3*	*3*	3	3

SHG Development monitoring Indicators (cont…)

Indicator	Is it useful to us to answer our research questions ?	Is it useful to the SHG or community as a learning tool?	Valid	Sensitivity	Ease of measurement	Believable	Sustainable
Timely repayment of the loans[2]	1 = An indication of repaymen t of loans would be useful, but this measurem ent didn't work!.	3	0	0	0 = too many factors influencing time of repayment – not all loans the same time period, people given extensions for being away and so on.	1	3
Number of new IGAs.	3	2	3	3	3	3	3
Capacity to go to the bank and TI's[3]	3	3	3	2	3	3	2
Number spending more than 2 hrs on new IGAs	0	0	0	0	3	0	0
Decrease in debt from Money lenders	3	2 they see some use of ml. as inevitable.	3	3	3	*3*	*1*
Participation in decision making[4]	1	0	1 Down to individu al interpret ation, example s mislead also.	1	1	1	0

[2]The word timely is confusing - another way of doing this would be to count how many fines have been charged for defaulting, but difficult to distinguish between fines for not attending meetings and not repaying loans.

[3] Must extend to number of women approaching new TIS, or representing themselves.

[4] Need to look for a better way of measuring it. They tell you what they know you want to hear.

SHG IGAs and livelihoods Indicators

Indicator	Is it useful to us ?	Is it relevant to SHG ?	Valid	Sensitivity	Ease of measurement	Believable	Sustainable
Increase in educating Children in schools [5]	2 It would be if it worked.	1. They suggested this but the measurement is difficult and no results have been shown to them for feedback.	1 If it worked it would be as it's one of the aims they give for forming a SHG – a priority, but what other factors influence the change?	1 Not sufficiently sensitive for time frame.	0 Very difficult and detailed as even women get confused, having to think of each child.	2 What data is there is believable.	0
Use of loans[6]	3	2 Consumption loans are needed. (depends whose opinion – we think it's good for them!)	3	3	3	3	3
Amount of asset built up through the IGAs[7]	3	3	1 difficult to attribute to membership with SHG alone.	0 SHG members could not attribute accumulation of assets to new IGAs – too soon.	3	3	0

[5]Use data from SHG fund utilisation records and from impact of new IGAs data in Occupational data base. This will show how many times SHG members have reported loans and IGAs having helped to pay school fees.

[6]Depends on detail of categorising purpose of loans– could be refined to be more useful to SHG

[7]Not collected see SHG fund utilisation and OCC data base.

Agro-forestry Indicators

Indicator	Is it useful to us to answer our research questions?	Is it useful to the SHG or community as a learning tool?	Valid	Sensitivity	Ease of measure ment	Believable	Sustainable
Increase in tree cover compared to plans	3	1	3	3	2 laborious	3	1
Change in crop yield*	2 less due to it being a perception	3 has convinced them of the value of AF	0 because other variables can't be controlled	0 = can't be measured over 3 year period	0	0	0
Perception of increased fodder availability	2	2	1	1	3	1	2
Farmers perception of change in crop development	2	3	1	1	3	1	2
Decrease in water run off							

*Abandoned.

Vermi-compost Indicators

Indicator	Is it useful to us to answer our research questions?	Is it useful to the SHG or community as a learning tool?	Valid	Sensitivity	Ease of measurement	Believable	Sustainable
Decrease in the use of chemical fertilisers	3	3	3	3	3	3	2
Less use of pesticides	3	3	3	3	3	3	2
Perceptions of Improved crop development							
Income generated from VC	3	3	3	3	3	3	2
Increased awareness on vermi-compost – number buying it/using	3	2	3	2	2	2	1

5 Findings

5.1 Did participatory research efforts contribute to answering research questions?

According to the research plans reviewed by the PM&E team in the July 2004 meeting, the Agro-forestry, Vermi-compost and Livestock participatory indicators (all focusing on improved management of individually owned natural resources indicators) were put together to respond to the question of *'Which strategies improved Natural Resource Management and how'?* It was noted that although little attention had been paid to including those more community based NR strategies, such as tank restoration and Village Forest Committees, these would be covered in a combination of the process documentation, evaluation of changes in baseline data (FIS, Maps and others). The only results available were from the PM&E pilots.

Table 5-1 Summary of main results from PIs on Natural Resource Management.

Indicators for vermi-culture	**Results**
Reduction in fertiliser use	An average reduction of 57% varying across villages from 25% (Mandihal) to 88% (Kotur)
Reduction in pesticide use	44% without IPM - 71% with IPM Measurements taken only in Channapur.
Improved crop development	87% of participants say crops develop better
Financial benefit	Average income from sales was 450 rupees and from savings in fertiliser costs 610 rupees, a total of 1060 rupees, equivalent to £15 (£1=72 rupees). A max average financial benefit of 3280 rupees (£45.5) for those who've been involved for 3 years.
Indicator for agro-forestry	**Results**
Increase in tree cover	29% achieved and 31% exceeded the planned trees per acre of 350-500, despite the drought conditions
Change in attitude towards trees	20 farmers further extending area under trees 23/25 farmers from the agro-forestry group would recommend it to others.
Increased capacity to manage wadis	25/25 for PIs, but in more elaborate PM&E field walks, the proportion of farmers in the BAD category went up by 8 % in a year.
Changes to crop development, soil moisture retention	25/25
Increased fodder	24/25
Indicators for Livestock	**Results**
Increased importance of livestock	19% of the SHG members had extended their livestock holdings and 24% had started keeping livestock for the first time.
Change in attitudes towards vaccinations	34% increase in number using vaccinations
Decrease incidence of disease	97% said it had decreased
Increased capacity to obtain fodder	Inconclusive
Increased productivity	Inconclusive
Indicators for Tank restoration	**Results**
Standing water in tank even in summer	3 ft depth observed. Enough for animals to drink, women to wash clothes to water horticultural plants and enough soil moisture for another crop where previously one has not been possible (on higher ground).
Enough water in the tank for irrigation	Not enough for irrigation. (what level would be enough?)
Crop yields increased and Number of fruit plants and fruit yields increased.	Not yet harvested

The results from the PIs and PM&E pilots for all the NR strategies covered, indicated some benefit having accrued for the participants, but the information available from the VFC and Livestock results are inadequate to suggest that those strategies were effective. Vermi-culture, agroforestry and tank and bund restoration results gave clear, valid and believable information that show their immediate outcomes. Their long term effect is suggested by the evidence given for changes in attitudes towards future management in respect to the tank repairs and in the confidence of the agro-foresters in the system to the point that 20 have extended their area. The livestock results only indicate the immediate effect of the vaccination programme, one part of the overall strategy. The importance of livestock in people's livelihoods is confirmed by the fact that they have taken up opportunities offered by the project to begin or extend production.

The participatory indicators focused on '*which strategies worked to (improve the Livelihoods of the poor and the very poor) and how'?* The strategy of SHG formation was based on the assumption that being part of a SHG would build up the capacity of members of the community to act on their own behalf in the face of rapid change if this was adequately well established with the help of experienced NGOs. The second strategy was to assist in the development of IG opportunities.

Table 5-2 Summary of main results from PIs on SHG development and livelihoods

Indicator	Result
Meet regularly	10/18 SHG met at all planned meetings and 2 more at nearly all. 6 SHGs in Chanapur, Mandihal and Kotur missed more, particularly in the summer season when festivals and non-ag. season work in cities take people away from the villages.
Save regularly	Across the 6 villages, between 40-70% of members of SHGs save regularly, on time. Saving late is most frequently explained by insecurity or irregularly of income and domestic strife. Channapur is known to have had a particularly bad problem with vices such as drinking causing domestic problems, which could explain why it has at least 10% fewer of its members saving on time. Also, it has a high proportion of very poor.
Demand for training and ideas on IG activities	Increase in Daddikamalapur, Mandihal and Mugad, but very small numbers looked at here.
Number of loans	Average number of loans per member is 2.5 Average per SHG of 32, ranging from 18 in Channapur to about 56 in Gabbur
Number of new IGAs.	Average 10.5/SHG, 0.8/member, no difference between years.
Capacity to go to the bank and TI's	Between 80 and 99% of members have been to the bank Between 40-80% have been to the TP or ZP, except in Channapur where less than 20% have been.
Decrease in use of money lenders	A 21 member reduction in use of money lenders between '03 and '04 which is 9% of membership of sample. 24 members (10.5%) still use money lenders when they can't avoid it when they already have a SHG loan or the sum required is too large. 17 of those who still use are members of one SHG.
Participation in decision making	Between 60% and 100% of all SHGs feel they have increased their participation in decision making.
Increase in number of children going to school	Not possible to calculate change, only totals. 67% of boys and 77% of girls attend.
Use of loans	52% SHG loans used for productive purposes. Needs periodic data for comparison to see if need for consumption (shortfall) loans changes.
Amount of asset built up through the IGAs	No Information yet, too soon.

The progress with self - development that the SHGs have made in general is clear from the indicators on meetings, savings, addressing officials and participation in decision making, which shows that the process used to establish and develop them was effective. Immediate outcomes in terms of increased number of new IGAs, availability of credit (number of loans) and the means to avoid expensive credit has been shown, although the value of money lenders has not been entirely replaced.

However more interesting analysis of the results to look at who the strategies might benefit more than others will not be possible with this data, as the SHG was the unit of analysis. Many of the indicators could be recorded with household numbers for individuals, so that the data could be analysed by household or SHG.

5.2 Did PM&E efforts improve capacity to monitor and evaluate?

The team admitted to finding the process very difficult to establish with the methodology taken from the training in the Philippines. They felt they didn't have a full grip on the differences between objectives, indicators, measures and methods themselves, although in theory they did, so that when they tried to lead a session with the SHGs things had sometimes become confusing, and it was always time consuming to complete a whole plan. They went through a dummy run based on a personal objective of one of the team members and the difficulties became even more obvious, as this experience did not include the problem of explaining to the SHG members something they were even less familiar with than themselves. It was clear the method had been too arduous, so that it was difficult to get to a point were something had been learned and modified by the SHGs as a result of the monitoring.

Another point made was that too much had been expected of the SHGs in terms of their ability to come up with indicators and methods. The team had not known how much they should intervene in the way of providing suggestions.

A modification of the process started with identifying one indicator instead of many, followed by working out how that would be measured, with suggestions from both team and SHG. The rest of the process would be collaborative also, right to the end point where SHG members are interpreting the information brought together and presented in a way that they could do themselves. At this early stage it is more useful if the indicator and measure are sufficiently simple and immediately measurable giving as instant a result as possible for interpretation (Section 4.6.11). One such example is that of loans taken and repaid by SHG members in Mandihal. Once this had been achieved with them in one simple, highly visual and participative session, they started to grasp the point of monitoring after previously struggling with it for several sessions.

When looking at the indicators selected and measured in each village below, increased capacity is more evident where the measures were *easy, time efficient and more immediately interpretable* by the participants themselves. Others which will require more than single measurements and calculations of difference may not lead to *useful or interesting learning* quickly enough for participants to remain motivated.

Some of the examples below (Table 5.3) have not involved any kind of physical recording, but relied upon discussions based around observations, the conclusions for each indicator only noted down by the CO, a very natural way of monitoring or evaluating, but not without its disadvantages. For others such as the dairy records, loan distributions and the ladder scale, it is easier to share the results and compare them with other groups should this become interesting. There is already a move towards encouraging the Federation of SHGs to monitor or take monitoring information from each SHG, or to share between SHG groups in some way. NGOs may consider setting up competitions or similar to motivate people to keep records. A great deal of sensitivity is required to establish practices of record keeping. People are very much intimidated by their lack of education and feel that without it they can't do such things. If outsiders always use the written word on charts in front of them,

they will feel disempowered, even if one or two of the group are literate and can interpret for them. However if they are shown simple recording as the SHG in Mandihal was, they will be empowered with the idea that they can do it, plus the fact they will be able to interpret the information that was previously only available to the one who could read the record book.

Table 5-3 Evidence of capacity building from the PM&E pilot.

Village	Latest Indicators (Feb 2005)	Method	Evidence of Capacity building
Gabbur Dairy	Increased number of animals, milk yields, fodder availability and frequency of visits from the vet.	Count the number of group members in different bands of animal ownership, milk yield and number starting fodder production and number of visits from the vet and compare change over one year.	The group were able to make the measurements themselves and recognised the need for accuracy in the yield figures reported – asking for pure milk not adulterated milk + water quantities sold.
Channapur Agroforestry	Plants (crops and trees) survive and grow well and are properly cared for.	Group assessments after observation of the condition of each wadi.	Own adjustments to criteria for ranking after first phase of measurement. Fact that they have established a process of group reflection and sharing of information. Concerns about criticism of other farmers may limit value of this.
Kotur Tank restoration	Sufficient moisture in the soil to permit another crop; standing water in the summer for animals to drink and women to wash clothes, to irrigate horticultural crops and get good yields.	Discussion and observations (for our purposes, photographic evidence has helped with this, see Plate B38, Annex B).	Suggestion that tank has to be dug deeper if there is to be enough water for irrigation, and that they think they should plant grass on the bunds for fodder, shows that they are reflecting a great deal about what has been achieved by their SHG and what more has still to be done. They were able to articulate very well which of the aims had been achieved and for which there was still work to be done, using observations alone. ie; no special method for measurement was needed by them.
Mandihal Self Help Groups (SHGs)	Everyone can get loans and repay them. More use of loans for things that will bring income.	Loans taken and repaid reported by each women, and what they were taken for, indicated by each women on a dot and picture chart.	Started very hesitantly, as they were illiterate and lacked confidence – would not pick up the pen to draw or mark points. Reassurance, and showing how they can avoid need to read and right gave them more confidence to try and

			now they do it themselves. Originally confused about purpose of M&E, but after drawing charts they showed a much stronger understanding. They said they had liked the method because it was easy and they could see things like distribution of loans amongst members. After looking at how many of their loans were productive or consumption loans they thought their SHG could improve in this respect
Mugad Income Generating Activities (IGAs).	Attendance and regularity of meetings, courage in meeting officials, starting IGAs and having more assets like TVs and gold!	Use of a ladder scale based on 16 rungs, to show how they feel they have improved in each respect, after discussion and consensus is reached.	The fact that the scale reached by the SHG for each of the different indicators was determined through a process of discussion and self reflection and decided by consensus and that the marking of the scores on the ladders was done by themselves shows that they the capacity to do this.
Daddikamalapur Village Forest Committee.	Reduction in use of fire wood, Increase in tree cover, availability of fodder, availability of fuel wood and fruit, water in tank and increased influence over forestry department.	Observation, numbers of wood piles and fodder piles, meetings with forestry officer, estimated changes in forest cover and water in tank.	

At the end of the project, the establishment of higher levels of participation in M&E had only just started. If the NGO team members were to continue to work with the SHGs to develop their capacity to monitor and evaluate their activities, then greater skills would develop in both parties. However at this point in time they have **not all completed the process** of measuring, looking at results to see what they tell them and lastly but essentially, modifying their activities accordingly, so they may not yet see the real value of M&E. It is certain that in most cases the SHGs would be willing to continue and that they have enjoyed the process, but to think that they would continue alone would be unrealistic, except the less formal process of discussion and self reflection. However, if the advantages are recognised the federations may be motivated to promote PM&E in their SHGs.

5.3 Which indicators might be sustainable and transferable?

The process of scoring each indicator according to criteria was a useful way of quickly evaluating them and the way they were measured and for getting some explanation and discussion from the team when an indicator didn't score well. The records are shown in the tables in the appendices, and the main points summarised here.

The **monitoring indicators (such as regular attendance at meetings)** are more useful to those who will still be involved at the end of the projects involvement, and results were very interesting to the participants of the SHGs shown the first round of data in the form of printed graphs in 2004. Explanation had to be given as to what the graph showed but the differences in heights of the columns was understood easily and the SHG members could find their own colour and compare it to other SHGs. They discussed their progress in relation to the others and found it useful. The same information **analysed in a different way**, for example to show differences between villages or between seasons would be more interesting to those looking at factors affecting the development and success of the SHG strategy in general.

Some measures would be more useful to the participants if they were **adapted slightly** to represent their needs and reality. The number of people saving regularly counted only those savers who saved on time. Timeliness was not an issue to the SHG members, they were really only concerned with an indication of numbers who saved, even if the money sometimes came late. In this case there was an external decision regarding the precise definition of the indicator and it led to it being less relevant to the members and results **will not influence changes** in ***when*** they save. Numbers of loans would also be more interesting, if, as in the Mandihal PM&E example, they are shown per person so that people can see the distribution amongst the members more clearly.

The **indicators of outcomes** are often more useful to the evaluative objectives of the project than for the participants, for example an increase in tree cover compared to original plans. Sometimes even if the SHG learn that they have, for example, a higher use of money lenders than previously or compared to other SHGs **what would they be able to do about it**? They would not feel they could change this. No-one goes to the money lender out of preference; they go because it is the only choice for them at that time and for that particular need. From the project's or even the federation's point of view however, this may be something to work on.

Some indicators fell down on **sensitivity and validity**. Visiting the bank and local government offices (TP/ZP) was considered to be good in most respects, but not very sensitive. What happens when all members have visited these places once or twice? Is it still relevant? It also became obvious to those collecting the data that the question of numbers of children going to school and building of assets amongst members were questions asked too soon, and also that it would be difficult to attribute them to SHG activities.

Does counting the number of people who raise their hands to a question on whether or not they feel they are participating more in decision making really give accurate information? Strong suspicions that they say what they think we want to hear,

combined with peer pressure and the fact that it is ambiguous, meant this indicator scored low in most respects. Others indicators relying on this from of assessment (perceptions of increased crop development fodder availability and soil moisture retention) also scored lower when it came to validity, sensitivity and believability, although some farmers had been able to express what they had observed that had so convinced them.

Realising that several of these indicators need modifying or need improved methods for measurement is part of an ongoing process, but sometimes it is difficult to see how to change them. When looking at the PM&E ways of measuring a variety of variables, some less tangible (increase in courage to visit officials, or increased capacity to manage agro-forestry) and some more tangible (milk yields or numbers of loans taken and repaid), it seems that the methods the participants have chosen have sometimes been more effective than the equivalent PI measures designed by the team. Some advantage can be gained by involving the participants in developing suitable methods.

Table 5-4 Examples of methods developed for the PM&E pilots that could inform improvements to the PIs.

Example	Characteristics	Advantages
Using a ladder scale to indicate change in capacity to visit officials	Using a scale depends less on numbers of members and more on the SHG as a whole. How are they able to tackle situations together when they need official support? This kind of scale requires discussion and consensus, in which the real issues behind the score are raised each time it is reviewed.	This provides some quantitative data which has qualitative explanation, and allows the members to monitor actual change themselves. It avoids the problems of validity and sensitivity involved with the existing method and is even easier to measure as calculation of difference from one year to the next is not required to detect change.
SHG members draw up their own charts for loans taken and repaid and how the loans were used.	Each member builds up the bars on the chart by adding their own information in form of dots or pictures. Everyone can understand and discussion and interpretation is immediate.	Similar patterns of recording could be worked out for other monitoring information (meetings, savings).
A similar pictorial system of participatory charts was seen with the milk yield categories and marks for numbers of members in each.	The milk yield categories were agreed between the members, and were realistic, which is more than can be said for the original categories suggested by the team. Such categories should be established in collaboration with the participants – even if they are not going to keep the records.	
Agro-forestry field walks and ranking of participants into categories of condition of plots.	Based on group assessment by criteria. Instant learning by individuals and group.	A more useful but also more valid way of determining change in capacity to manage than the measure used for the PI. Could be adapted for other indicators?

Which are the common features of the better indicators?

They are based on easily quantifiable, unambiguous variables or structured qualitative assessments.

They can be of value to both participants, NGO's and researchers.

They can be measured in a way that can be seen and understood by all participants and that lead to immediate learning.

Indicators may be less difficult to find than a suitable measure and method, and these greatly influence the quality of the indicator. An understanding of what methods and measures are best has only started to be established after considerable trial and error.

The only sustainable indicators are the ones which incorporate relevance, ease of measurement and ease of sharing and comparing results, promoting discussion, reflection and learning. The process of interpreting the results is the most important step and where the real end product of M&E is realised. At this point members can see if the efforts put into M&E have been of value, and this in turn will influence whether the practice spreads between groups.

Appendices to Annex D

These are too voluminous to be printed in full in this report. The Appendices listed here may be found on the CD attached to this report. Some are reproduced in Appendix 13 at the end of Annex C.

Appendix 1 Table of key events.

Appendix 2. Establishment of Participatory Monitoring and Evaluation.

2.1 Meeting report Feb 2002.

2.2 Materials for Discussion Project R8084 Team Meeting Hubli-Dharwad 20th – 29th August 2002

2.3 Summary Report Project R8084 Team Meeting August 20th-29th 2002.

2.4 Participatory Monitoring and Evaluation Report: Participatory Indicators

Annexure 1: Research Design PM&E_

Annexure 2: Participatory Indicators list before selection.

PM&E annex 3: - Excel codes

Annexure 4: Participatory Indicators Exercise in Villages: Results and Lessons learnt.

Annexure 5: Indicators and Measures Identified by the Village Communities for the PM&E pilots.

Appendix 3 PM&E Reports and progress reviews.

3.1 Participatory Monitoring and Evaluation Report: First round of measurement and analysis of Participatory Indicators for SHG Development. February 2004.

Annex 1: Activities Plan for Indicators to be measured by the team

Annex 2: List of SHGs to be included

Annex3: Charts for SHG development

Annex 4: Charts for improved Livelihoods.

3.2 Notes from meetings with PM&E team Hubli Dharwad July 2004

3.3 Progress review of monitoring and evaluation; R8084. July 2004

Appendix 4. Training Reports.