part 4 Monitoring Impact
Elements of Participatory Evaluation

What is Participatory Evaluation?
Participatory evaluation provides for the active involvement in the evaluation process of those with a stake in the programme: providers, partners, customers (beneficiaries) and other interested parties, and it takes place throughout all phases of evaluation: planning and design; gathering and analysing the data; identifying the evaluation findings; preparing conclusions and recommendations; disseminating results; and preparing an action plan to improve programme performance.

Characteristics of Participatory Evaluation
Participatory evaluations typically share several characteristics that set them apart from traditional evaluation approaches. These include:

■ Participant focus and ownership
Participatory evaluations are primarily oriented to the information needs of programme stakeholders rather than of the donor agency. The donor agency simply helps the participants conduct their own evaluations, thus building their ownership and commitment to the results and facilitating their follow-up action.

■ Scope of participation
The range of participants included and the roles they play may vary. For example, some evaluations may target only programme providers or beneficiaries, while others may include the full array of stakeholders.
Participant negotiations
Participant negotiations involve the process where participating groups meet to communicate and negotiate to reach a consensus on evaluation findings, to solve problems and to make plans to improve performance.

Diversity of views
Diversity of views refers to the inclusion of views of all participants, with more powerful stakeholders allowing participation of less powerful ones.

Learning process
The learning process is an experience for participants, with emphasis on identifying lessons learned that will help participants improve programme implementation, as well as assessing whether targets were achieved.

Flexible design
Flexible design involves the process where some preliminary planning for the evaluation may be necessary, but most of the design issues are decided in the participatory process. Generally, evaluation questions and data collection and analysis methods are determined by the participants and not by external evaluators.

Empirical orientation
Empirical orientation refers to participatory evaluations being based on empirical data. Typically, rapid appraisal techniques are used to determine what happened and why.

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### Differences Between Conventional and Participatory Evaluation

<table>
<thead>
<tr>
<th>Who</th>
<th>Conventional</th>
<th>Participatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who</td>
<td>External experts</td>
<td>Community members, project staff, facilitator</td>
</tr>
<tr>
<td>What</td>
<td>Predetermined indicators of success, principally cost and production outputs</td>
<td>People identify their own indicators of success, which may include production outputs</td>
</tr>
<tr>
<td>How</td>
<td>Focus on “scientific objectivity”; distancing of evaluators from other participants, uniform, complex procedures; delayed, limited access to results</td>
<td>Self-evaluation; simple methods adapted to local culture; open, immediate sharing of results through local involvement in evaluation processes</td>
</tr>
<tr>
<td>When</td>
<td>Usually upon completion of project/programme; sometimes also mid-term</td>
<td>More frequent, small-scale evaluations</td>
</tr>
<tr>
<td>Why</td>
<td>Accountability, usually summative, to determine if funding continues</td>
<td>To empower local people to initiate, control and take corrective action</td>
</tr>
</tbody>
</table>

Source: Narayan-Parker, 1993: 12

### Arguments for Participatory Monitoring and Evaluation

- Enhanced participation, especially of beneficiaries, in monitoring and evaluation (M&E) helps improve understanding of the development process itself.
- Increased authenticity of M&E findings that are locally relevant.
- Improvement of the sustainability of project activities by identifying strengths and weaknesses for better project management and decision-making.
- Increasing local–level capacity in M&E, which in turn contributes to self–reliance in overall project implementation.
- Sharing of experience through systematic documentation and analysis based on broad-based participation.
- Strengthened accountability to donors.
- More efficient allocation of resources.

Use of facilitators

Participants actually conduct the evaluation, not outside evaluators as is traditional. However, one or more outside experts usually serves as facilitator with a supporting role as mentor, trainer, group processor, negotiator and/or methodologist.

Why Conduct a Participatory Evaluation?

Experience has shown that participatory evaluations improve programme performance. Listening to and learning from programme beneficiaries, field staff and other stakeholders who know why a programme is or is not working is critical to making improvements. Also, the more these insiders are involved in identifying evaluation questions and in gathering and analysing data, the more likely they are to use the information to improve performance. Participatory evaluation empowers programme providers and beneficiaries to act on the knowledge gained.

Advantages of Participatory Evaluation

- Examines relevant issues by involving key players in evaluation design.
- Promotes participants’ learning about the programme and its performance and enhances their understanding of other stakeholders’ points of view.
- Improves participants’ evaluation skills.
- Enables the community to measure its own progress.
- Mobilises stakeholders, enhances teamwork and builds a shared commitment to act on evaluation recommendations.
- Increases the likelihood that evaluation information will be used to improve performance.
- Gives people an opportunity to reflect not only about the project but also about themselves as a community.

Disadvantages of Participatory Evaluation

- May be viewed as “less objective” because it involves programme staff, beneficiaries and other stakeholders with possible vested interests.
- May be less useful in addressing highly technical aspects of a project.
- May require considerable time and resources to identify and involve a wide array of stakeholders.
- May be used as an opportunity for manipulation by some stakeholders to further their own interests.
### Levels of End-User Participation in Evaluation

<table>
<thead>
<tr>
<th>Dimensions of evaluation</th>
<th>Levels of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Evaluation initiator</td>
<td>Commissioned or obligatory evaluation done to, on, or about people, and typically part of programme development. Meets institutional needs.</td>
</tr>
<tr>
<td>Purpose</td>
<td>Justify or continue funding. Ensure accountability. Determine levels of funding or sustained support.</td>
</tr>
<tr>
<td>Question-maker(s)</td>
<td>Agency heads, administrators, outside clientele, persons from evaluation site.</td>
</tr>
<tr>
<td>Methods</td>
<td>Established research designs, statistical analyses, reliance on various quantitative methods. Product (findings) oriented (mathematical in nature). Dominated by math whiz kids.</td>
</tr>
<tr>
<td>Evaluator’s versus facilitator’s role</td>
<td>Evaluator takes lead in designing evaluation; formulates questions/survey forms with no input from those evaluated; steers by setting design; assumes objective, neutral, distant stance.</td>
</tr>
<tr>
<td>Impact/Outcome</td>
<td>Reports and other publications circulated in-house. Findings rarely circulated among end-users; and loop into planning stage with little input from end-users.</td>
</tr>
</tbody>
</table>

Adapted by Rachel Polestico from material produced by the USAID Center for Development Information and Education, PME Tips, 1996 and other material (as cited).
Systematisation is a methodology which facilitates the on-going description, analysis and documentation of the processes and results of a development project in a participatory way.

New knowledge is generated through a systematic learning process, which is then fed back and used to make decisions about actions to be implemented to improve project performance. The lessons learned are shared with others.

Objectives of Systematisation

There are six related objectives of systematisation. Each objective, while important in and of itself, is also a step toward achieving the next objective.

1. Preserve project information through documentation

In recent years, development workers and project beneficiaries have expressed the need to describe, analyse and document their
accumulated development experiences. In their daily work, these people often reflect on how development projects are planned and implemented, as well as on their impact and how they can be improved. Such informal lessons are rarely documented, so the experience and knowledge gained is lost over time. The systematisation process facilitates the documentation of these experiences so they can be used for analysis and learning in an organised and coherent manner. The information also serves as a basis for writing reports, articles, papers and training materials.

2. Continuously improve project performance and results

On-going reflection and analysis enable organisations to learn from their successes and failures, as well as from the different factors that hinder or facilitate project performance. The lessons learned through this process are fed back into the project to improve its performance which, in turn, will contribute to achieving better results and impact.

3. Promote empowerment, self-reliance and sustainable development through active participation

The process of systematisation requires a high degree of participation by all parties involved in the description, analysis and decision-making of a project. If genuinely participatory, this process can promote the empowerment of the intended beneficiaries, encouraging them to actively participate in defining and fulfilling their needs.
4. Contribute to mutual understanding and cooperation between communities and development organisations
Because systematisation is a participatory process, it facilitates reaching a common understanding between community members and the development organisation staff about the nature of community problems and the actions to be taken to solve them. Ongoing dialogue and partnership in the process of reflection, planning, implementation and evaluation of development activities is essential.

5. Enhance organisational capacity through development of skills
Systematisation helps participants to develop their ability to plan and implement activities, learn and manage resources efficiently. It also facilitates common understanding of a project by its staff. This process also allows organisations to develop skills for networking with other organisations (NGOs, GROs, GA, donors), thereby promoting cooperation and sharing of knowledge.

6. Strengthen organisations through the sharing of lessons learned
Sharing lessons learned is important for organisations to play a meaningful role in society. Sharing knowledge and experiences with other organisations saves time and resources as it will make them less likely to make similar mistakes. In this way, systematisation facilitates institutional learning, common problem-solving, capacity-building and networking. If information is shared with donor agencies, it gives them a better idea of the needs of various organisations and enables them to allocate resources more effectively. Sharing of lessons may be done through workshops, conferences, training courses, publications and formal or informal networks.

Why Should We Systematise?
The systematisation process allows us to continuously analyse project activities, generate knowledge to improve its implementation and impact, and share lessons learned.

The five on-going activities of the systematisation process are:
1. Description of project
2. Analysis of project activities
3. Decision-making and action to improve project performance
4. Documentation
5. Sharing lessons learned

All these activities must be documented in order to ensure that information is preserved for analysis, learning and sharing with other organisations.
Who Can Participate in the Systematisation Process?

Anyone who is involved in the design and implementation of a development project can participate in the systematisation process. This can include:
- Project participants
- Community leaders
- Development workers
- Facilitators
- Technical staff
- Social workers
- Educators
- Researchers and evaluators
- Government officials
- Donors

Aspects to Consider Before Starting the Systematisation Process

Before starting the systematisation process, you must carefully analyse the following aspects with project staff and beneficiaries.
- Why are we going to "systematise" the project?
- What aspects of the project will be analysed?
- Who will coordinate the process?
- Who will participate in the systematisation process?
- What methods and tools will be used?
- What kind of data will be used?
- How will the collected information be recorded and organised?
- What procedures and time frame will be used?
- What language (local or otherwise) will be used?

When Can We Start a Systematisation Process?

Ideally, systematisation should begin with the planning of a project and continue throughout its life.

If this is not possible, systematisation can be started anytime after a project has begun. However, it cannot be conducted at the end of a project, as most of the experiences and the opportunity to improve the project on an on-going basis will have been lost. Such end-of-project activity would be limited to an impact evaluation.

We can systematise an entire project or just a specific component, such as different kinds of activities, training, community participation, or a given phase of it. Whatever the case, be sure that everyone is clear about what is going to be systematised and that this aspect is perceived as relevant and necessary by all involved.

We will also need to decide how general or detailed we want the information to be and to carefully select the aspects which are most relevant. Certain aspects may be emphasised over others, but some time and energy should be dedicated to each area. The more time we spend on each aspect, the more useful the systematisation process will be.

Choice of Methods and Tools

We will need to decide what methods and tools are to be used to elicit and analyse information and make decisions. We should choose tools that we and our colleagues know and are familiar with already, and that will be useful to systematise the project.
### What aspects of the project will be analysed?

<table>
<thead>
<tr>
<th>Conceptual Framework</th>
<th>General Context</th>
<th>Participants and Project</th>
<th>Implementation and Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ideology</strong></td>
<td><strong>Local context</strong></td>
<td><strong>Participants</strong></td>
<td><strong>Project implementation</strong></td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td><strong>Regional and national context</strong></td>
<td><strong>Nature of the project</strong></td>
<td><strong>Result and impact</strong></td>
</tr>
<tr>
<td><strong>Global context</strong></td>
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</table>

**Address issues bearing on the design and analysis of the general plan of action, or project implementation strategy of our organisation.** This is important because it will help us have a clear framework of the strategies that guide the actions of the organisation or project.

**Obtain information about the historical, political, economic, social and cultural characteristics which influence the organisation or project.** This is important in order to understand the environments in which we work and the influence they may have in achieving objectives. Remember that these characteristics should be described and analysed in relation to the goals and objectives, and to the implementation of the project.

**Know the characteristics of the different participants involved in the project, to better understand with whom we are working.** Likewise, it is fundamental to have relevant information that will allow to better plan, implement and evaluate a project, based on community needs.

**This helps us learn how the project is being implemented in order to improve its performance, to continuously analyse the performance of the activities being implemented and to understand the dynamics and changes in project activities.**

**Emphasis is on the ongoing analysis of project activities and the generation of lessons to be fed back to improve project performance and results.**
Why is it Important to Share Lessons Learned?

There are a number of reasons to share lessons learned:

- Present successful alternative development models, for planning and replication purposes, which have been well analysed and documented, and based on practical field experiences.
- Facilitate others in learning from our mistakes, thereby helping them to avoid making similar errors.
- Permit others to learn from the problems that were encountered in the project, and how were they solved.
- Increase the impact of our project by positively influencing the design and implementation of other projects, and the policies of other organisations.
- Promote networking through the exchange of knowledge and information, thereby increasing cooperation among different organisations.

For more detailed information, refer to:

Selener, Daniel. 1998. A Participatory Systematisation Workbook. International Institute of Rural Reconstruction (IIRR), Regional Office for Latin America, Muirriagui Donoso 4451 y Av. America Apartado, Quito, Ecuador.

Prepared by:

Daniel Selener
Innovative Experiences in the Use of Participatory Monitoring Tools

The stakeholders of a project need to track and assess whether the programme of targeted interventions is relevant, efficient, effective and sustainable. Monitoring and evaluation are important management tools to assist the process.

Participatory monitoring and evaluation (PME) involves the stakeholders in a collaborative framework for measuring, recording, collecting, processing and communicating information for use in problem-solving and decision-making. It enables them to review and re-adjust any of the project components or institutional arrangements as necessary.

In PME, monitoring and evaluation get merged with participatory processes. Feedback mechanisms are not a one-time process but are built into the project design as a regular component of the project cycle.

The PME cycle is not only a learning process culminating in the heightened awareness and understanding of various stages and processes of the project, but also an empowering process through which stakeholders gain greater control over the development project. Besides being useful for planning any intervention, PME transmits knowledge and insights for joint learning among stakeholders. Quite often, this mutual exchange culminates in influencing and shaping the attitudes and behaviour of the stakeholders concerned.

There is no "final" definition of participatory monitoring and evaluation. There are several participatory approaches using the PRA methodology such as beneficiary assessment, participatory assessment, monitoring and evaluation, self-evaluation, participatory impact monitoring, community or citizen monitoring.
PME Learning Cycle

PME contributes towards:
- Building capacities and negotiation skills by providing beneficiaries an opportunity to analyse, reflect and assess the progress and obstacles of the project.
- Enriching indigenous knowledge through interactive and participatory initiatives by providing a larger space for learning from past mistakes and taking corrective action.
- Promoting participation of stakeholders in the project by using a basket of participatory tools and techniques to analyse, plan and transform the given situation.
- Empowering people by putting them in charge of the process, so that they can demand accountability and exercise control over the project activities.
- Fostering coalition-building through participation on a sustainable basis and changing the ‘mind-set’ of all stakeholders.

From “know-how” to “do-how”
For participatory processes, attitudinal and behavioural changes are far more important than tools, techniques and “how to do” methodologies. However, a flexible “how-to-do” social methodology is a useful roadmap for the conduct of PME. (See related topic on An NGO-Designed Participatory Impact Monitoring (PIM) of a Rural Development Project on page 223.)
The Self-Monitoring Chart for SHGs

Participatory monitoring of self-help groups
The South Asia Poverty Alleviation Programme (SAPAP) is under implementation in India, in three districts of Andhra Pradesh State. Under this programme, women self-help group (SHG) members monitor their own activities using a pictorial chart. Since most of them are illiterate, the project relies heavily on visual presentation. Visualisation, unlike written script, enables all the SHG members to participate in the exercise without inhibition.

Description and use of the monitoring tool
The chart includes twenty indicators for monitoring, such as:
- regularity of convening meetings;
- attendance of members in meetings;
- growth of savings of SHG members;
- increased access to micro-credit;
- participation of all group members in decision-making; and
- formation of new groups by SHG members, etc.

The monitoring chart may be used in the following manner:
- Initially, the group animator explains to the women the twenty indicators listed pictorially on the chart for monitoring SHG progress.
- The women of each SHG discuss, assess and report the progress of their group once every month by using the chart.
- Each indicator may be scored on five points.
- The grading to be given to each indicator is decided on after it is discussed by SHG members. For example, take the case of convening meetings. If the group convenes the meeting regularly at a fixed date, venue and time, and if all members attend the meeting, then that group may decide to score five points for that indicator for that particular month.
- The scores for several months can be marked on the same chart. If a group has consistently low scores for some indicators, then it means that their performance in those areas is weak and vice versa.
- The monitoring chart is kept with the SHG.

Indicators and Measurement
In PME, the process of selecting indicators is a very important and difficult task. It should be done in consultation with the beneficiaries by following an iterative and participatory process. The indicators must be valid, reliable, relevant, sensitive, specific, cost-effective and timely. The aim is to collect information on the most essential components and not to compile huge amount of data, which rarely get. The process of selecting indicators should be kept flexible to accommodate new ones or to modify the old ones on the basis of experience and availability of relevant data.
This monitoring tool is used as a learning process by the group, to reflect on their own performance and to take corrective action.

### Sample of a Self-Monitoring Chart

#### 1. Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Venue</th>
<th>Attendance</th>
</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

#### 2. Savings mobilisation

<table>
<thead>
<tr>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>Jn</th>
<th>Jl</th>
<th>Au</th>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

#### 3. Access to micro credit

<table>
<thead>
<tr>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>Jn</th>
<th>Jl</th>
<th>Au</th>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

### Advantages of using the SHG impact-monitoring chart

- It is visual and easy to use.
- The chart remains with the group and they may compare over time how group performance has changed and discuss the reasons for this shift.
- The SHG members may use the chart at apex body meetings to compare the performance across SHGs.
The Ladder Approach to Monitoring Decision-Making Processes in the Family

The Participatory Resource Management Project (PRMP) in Tuyen Quang, Vietnam, pursues participatory processes in all stages of the project cycle. The following is an illustration of how PME tools have been used by the project to monitor decision-making dynamics involving men and women in the family.

Description and use of the monitoring tool
To assess the PRMP’s impact on the role of women in decision-making in the household, a “ladder of empowerment” was drawn. Each married woman was asked to indicate her position in the household vis-a-vis her husband’s by asking the following questions:

“If your husband is placed at the centre of the ladder, where are you with respect to decision-making on:

- whether to attend village meetings;
- whether to attend women-related training programmes;
- how to manage loans;
- which products to buy and sell;
- which kinds of animals to rear and which varieties of crops to grow?”

Results of the monitoring exercise
Most of the women said that decisions are made jointly between husband and wife. The only exceptions were decisions as to whether women should attend women-related training, which are slightly dominated by the women.

Advantages of using the ladder of empowerment

- It is easy for uneducated women to decide on and visualise their position on the ladder, with respect to their husbands, related to specific areas of decision-making.
- The women are not embarrassed by having to explicitly make a statement of superiority or inferiority (in terms of decision-making power) over their husbands.

The Use of Semi-Structured Interviews to Monitor Decision-Making in the Community

Another monitoring exercise was used in PRMP to assess the contribution of women to decision-making at the community level.

Description and use of the monitoring tool
A semi-structured questionnaire was used to ask the women if they attended village-level meetings, spoke in village-level meetings, and whether their views were considered in village-level meetings.
Results of the monitoring exercise

It is heartening to know that PRMP’s contribution with respect to the role of women in decision-making at the community level seems to be very significant: 80% of the women interviewed attended the village meetings and 50% of the women beneficiaries associated with PRMP for one year said that their views were heard and considered. Two-thirds of the women associated with PRMP for five years felt that their views were heard and considered. Therefore, one may say that PRMP certainly played a very positive role and contributed substantially to enhance the role of women at the community level.

Advantages of the semi-structured interview

This tool, by virtue of the questions it asks, captures the quality of participation in meetings in a way which the community can relate to.

Conclusion

PME empowers the stakeholders to steer the project effectively and efficiently. PME allows for better use of scarce resources. There are several participatory tools and techniques that can be used for PME, but the choice of tools, techniques and methods depends on the nature of the project. It is also possible to combine quantitative evaluation methods in PME-based approaches when attempting to assess impact.

Prepared by:
P. Subrahmanyam

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**Women in Decision-Making at the Community Level**

Example of a simple semi-structured questionnaire administered to women

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Attended the meeting</th>
<th>Spoke during the meeting</th>
<th>Views were considered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village production plan</td>
<td>✓</td>
<td>✓</td>
<td>_____</td>
</tr>
<tr>
<td>Village regulations meet</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Village infrastructure plans</td>
<td>✓</td>
<td>_____</td>
<td>✓</td>
</tr>
</tbody>
</table>

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An NGO-Designed Participatory Impact Monitoring (PIM) of a Rural Development Project

Participatory impact monitoring (PIM) is a complex task and is often neglected in favour of activity and results monitoring.

There is often a lack of effective, timely and handy methodology to assess impact. One attempt to close the methodological gap is the PIM process which was designed and used by an NGO (MYRADA) in Southern India.

The methodological guidelines for PIM are presented in a step-by-step approach which has evolved from practical experience gained during the first application. The approach may be adapted to suit the needs of a specific project.

Definitions

- **Participatory** means that all stakeholders monitor impacts of their project self-responsibly and autonomously and exchange results with each other in a continuous and regular dialogue.
- **Impact** comprises all effects and changes that are caused by a project; they may be intended (planned), unintended (unplanned but imaginable) or occur unexpectedly (beyond the perception of the actors involved).
- **Monitoring** is a continuous and systematic process of observation, documentation and critical reflection.
Phase I: Preparation for Monitoring

PIM starts with several decisions concerning the programmes and impacts to be monitored. In these decisions, various interests of the NGO and possibly its partner organisations have to be made transparent and reconciled.

**The Importance of PIM**
Funds for development assistance are decreasing and development agencies worldwide are being questioned to justify how and to what extent the expenditures benefited the rural poor and to what degree the efforts have affected development processes. A major concern lies in the sustainability of the project and the effect on poverty alleviation. In addition, the communities themselves must be empowered to monitor the impact of development interventions. PIM seeks to close the methodological gap.

**Step 1: Decide on which programmes to monitor**
An integrated rural development project usually consists of several programmes (e.g., health and sanitation, watershed development, micro-credit, literacy, etc.). A few or only one programme should be selected for monitoring.

**Step 2: Identify possible impacts of the programme(s)**
A list of intended and unintended impacts of the programme(s) must be developed during this stage. A brainstorming session is an appropriate instrument to facilitate the identification of impacts.

The guiding questions for this process are:
- What positive changes do we intend to create with the programme?
- What unintended changes (positive/negative) do we expect or fear will occur in the course of our programme?

**Step 3: Clarify key terms and agree on the meaning of the impacts**
Each individual perceives impact and defines key terms differently. There must be a common understanding of the meaning of the impacts and an agreement of their definitions must be reached.

**Step 4: Decide on impacts to be monitored**
A manageable list of selected impacts to be monitored is generated in this step. Criteria for the selection of impacts depend on the needs of the NGO. In order to get a holistic picture of a programme, the package can comprise socio-cultural (“soft”) impacts as well as technical-economic (“hard”) impacts.
Phase II: Reflection on the Impacts to be Monitored

During this phase, it is necessary to examine the relationship between project activities that result in a certain impact as well as other factors that may contribute towards creating this impact.

Elements for Successful Adoption of PIM

As with any successful introduction of a new instrument within a given project framework, the adoption of PIM requires change on both sides:

- The instrument has to be flexible enough to suit the needs, capabilities and constraints of the users.
- The users have to be willing to acquire new skills and to provide favourable framework conditions.

Practical experience indicates that, for PIM to be successful, staff should feel a need for it. Since PIM involves extra work, the project personnel must feel motivated to apply it and PIM should not be considered only as a donor or head office concern. It must also be remembered that additional inputs, especially in terms of finances and time, are needed. These should be realistically assessed before PIM is introduced.

Step 5: Investigate the relationship between project activities and impacts

During this step, all activities of the NGO that influence the impact must be identified and cause-effect relationships must be established.

A guiding question which may be used at this stage is: “How and to what extent are the impacts related to the project activities?”

Step 6: Investigate the relationship between factors external to the project and impacts

Most impacts are influenced by a large number of external factors besides project activities. These can have fostering or hampering effects on the achievements of the project (e.g., government programmes and the media). The extent to which these factors influence each impact should be established.

A guiding question which may be used at this stage is: “Which other factors might influence the impact?”
Step 7: Examine the existing M&E activities measuring impact
PIM must consult information and data already available in a project. These data refer to all background information that has already been monitored or compiled in the form of publications, lists, reports, files, etc. This step makes it easier to identify information needs and starting points for the integration of PIM into an existing monitoring and evaluation (M&E) system. Furthermore, this step will be useful in to avoid “re-inventing the wheel” in the monitoring process.

Phase III: Development of Indicators
Developing indicators and methods that allow for measurement of the chosen impacts is the core and most challenging phase of PIM. In this phase, the involvement of the target group is absolutely necessary.

Step 8: Draft the indicators
In order to make an impact observable or measurable, indicators and methods have to be developed. Indicators are detailed descriptions of impacts, developed in order to assess the impacts. It is unrealistic to expect that good indicators and methods may be developed at one go. Instead, a step-by-step procedure is necessary, starting with the drafting of preliminary indicators and data collection tools. A preliminary list of indicators, missing information about the indicators, and the rationale for choosing these indicators have to be identified in this step.

Step 9: Consult the community and other resource persons for indicator development
The preliminary list of indicators developed previously must be reworked with the community. In Step 8, they have been formulated only on the basis of the experience of the NGO and on available information about the project. The community must be consulted to finalise the indicators since they are the most knowledgeable about their environment and often have their own indicators for assessing changes relevant to them.
“How do you notice that an impact has occurred?” and “Can you give a concrete example as to how you observe an impact?” are guiding questions for the community.

Any open questions concerning impacts, the indicators, their rationale and their limitations have to be clarified with the community.

**Step 10: Select the most appropriate indicators**
It may turn out that the number of indicators generated so far is too high. In view of limited resources, a decision has to be made as to which of the indicators (or sets of indicators) are most appropriate to measure various impacts to a satisfactory degree. The development of criteria for the selection of indicators must allow for a ranking of the (sets of) indicators. Matrix scoring is an appropriate tool to facilitate such a ranking. Criteria for selection of indicators may be: user-friendliness, low cost, precision, etc.

**Step 11: Define survey units and decide on the sampling procedure**
Survey units (e.g., community-based groups) and respondents (members) have to be defined at this stage. A further decision has also to be made on the sampling procedure and the minimum sample size, as sampling also has a critical influence on the reliability of the results.

**Step 12: Design data collection tools**
The data collection method is to a large extent already defined by the selection of indicators. For interviews, the staff has to decide on a limited number of questions per indicator. If the indicator is to be measured using PRA tools, detailed instructions for the facilitator must be developed.

**Step 13: Design data processing and data analysis sheets**
In order to handle data obtained during the measurement phase in a systematic manner, it is important to have data processing sheets ready for data entry. It is also necessary to have a clear idea about how the data may be analysed subsequent to the measurement phase.

**Step 14: Pre-test indicators, methods and data analysis**
A pre-test is carried out to check whether the data collection instruments are adequate, unambiguous and manageable in the field. This step is absolutely essential in preparing for measurement since it is the last check of the feasibility and usefulness of selected instruments before they are applied on a broad scale.

**Step 15: Determine thresholds and targeted achievements**
The assessment of impacts is based on the comparison of results with “milestones” set in advance. In order to know whether an NGO and a community have achieved their goals, it is necessary to qualify and quantify their goals beforehand.
Phase IV: Measurement of Impact
Impact measurement in the field is the most “practical” phase of PIM. To ensure good data quality, the measurement needs to be well planned and supervised.

Requirements for PIM
The indicator measurement tasks should be simple and harmonised with regular and routine work. Good communication channels and appropriate systems for feedback between different project levels as well as between staff and the community are required. A close co-operation between planners, implementers and the staff responsible for monitoring is generally good. Monitoring should not be executed in an isolated unit, which may require some organisational changes within the project. Many other monitoring systems might already be in place and PIM can be only one of them. The introduction of PIM is much easier if some kind of monitoring system already exists in a project or in community-based organisations, which may be upgraded through PIM.

Step 16: Prepare for impact measurement
Data collection needs good preparation in terms of time, manpower management, logistics and materials. An operative plan must be detailed and staff has to be trained in survey methods.

Step 17: Collect and process data
To sustain quality, incoming data must be continuously checked and properly processed throughout the measurement phase. The completeness of filled questionnaires and other notes taken must be checked. Data processing sheets have to be filled in.

Phase V: Analysis of Impact Measurement Results
Data obtained during the measurement must be interpreted well in order to be able to assess the impacts correctly and arrive at appropriate conclusions concerning plan adjustments and redefinition of strategies. In this process, the active participation of the community is of vital importance. Methods used during impact measurement must also be evaluated and improved.
Step 18: Analyse and pre-assess results
Results of the measurement must be analysed and preliminary conclusions should be drawn.

Step 19: Draw conclusions in joint reflection with the community
After having identified possible weak areas of the project, the main tasks are to analyse the reasons for deviations from the targeted achievements, to draw conclusions for plan adjustments and the redefinition of project strategies. The active involvement of the community in joint reflection is necessary in this phase. Joint reflection workshops are a good platform to share the results of impact measurement with the community. Issues such as, how far observed changes may be attributed to the project or some of the targets have not been achieved, may be discussed with the community.

Step 20: Evolve recommendations for future monitoring
As monitoring is a continuous, repetitive activity, PIM must be institutionalised in the NGO and in community-based institutions. Recommendations for future monitoring must be made at this stage. Designing ways to institutionalise these activities into the existing M&E system is the aim of this step.

The steps described should not be seen as static. It is neither possible nor desirable to have a rigid single design of PIM to which all projects must conform in the same sequence and order. Developed indicators might be valid for similar projects, but it is also possible that indicators and tools may have to be modified and iteratively updated by the users to fit in their specific situations and needs. (A practical example of how PIM has been introduced in a project has been described in the topic on Testing Participatory Impact Monitoring: Participatory Resource Management Project in Vietnam on page 236).
Using PRA for Participatory Impact Monitoring: An Illustrative Example

MYRADA is a non-government organisation (NGO) which focuses on the formation of self-help groups (SHGs) and other local-level institutions. The core function of an SHG is the mobilisation of savings and management of credit. However, the SHG has repeatedly demonstrated its potential for being a credit-plus institution. By linking with other organisations in the environment, the SHG can increase members' lobbying power and access to services and information.

Selection of Impact for Monitoring
One of the achievements targeted by the staff for the SHG programme is:

"That the SHGs should have established strong linkages by the end of the third year, with the following institutions: federation (apex body of SHGs), bank or other financing institutions, Gram panchayat, Zilla panchayat (local government structures), hospitals, Block Development Officer (BDO), School Betterment Committee and other SHGs in the village."
The impact to be monitored, “Development of Networks with other Institutions”, was chosen in order to investigate the extent to which this has been achieved by the project.

**Indicators Selected for Measurement and Rationale for Choosing these Indicators**

The indicators chosen to measure impact are:
- the number of linkages between SHGs and other institutions;
- the intensity of their contact; and
- the importance of each linkage for SHG members.

The number, strength and importance of linkages of SHGs with other institutions determine the quality of an institutional network. Therefore, investigating the development of these features can assess the growth and effectiveness of networks.

**Adaptation of Chapati (Venn) diagramming for monitoring impact**

Chapati diagrams have been successfully used by community-based groups for assessing linkages. However, one problem faced in using them for monitoring impact at the project level, is that chapati sizes, as well as their distances from the centre of the diagram, vary freely. Thus, analysing the chapati diagrams to allow for comparisons in the monitoring process becomes difficult. To aid the comparative analysis of chapati diagram results from different SHGs, the number of chapati sizes and their distance from the centre of the diagram have been limited to two categories:
- three different sizes of chapatis represent three degrees of importance (high, medium and low) attributed by SHG members to the institutions involved; and
- three circles around the centre of the diagram represent three degrees of interaction between the SHG and these institutions.

**Limitations of the method**

Despite modifications, the method still has some limitations.
- Since a chapati diagram is a participatory tool, the quality of the results depends strongly on the quality of group facilitation and detailed documentation of the process.
- Moreover, the results depend very much on the subjective point of view of the respondents, which makes their comparison difficult.
- Finally, the result analysis can, for the most part, only be done in a very descriptive way, which means that the drawings may at best support data analysis.

**Use of the method**

1. **Instructions for data collection**
   - Prepare the tool before you go to the field.
   - Introduce the chapati diagram and thoroughly explain the meaning of the three different circles and chapati sizes to the SHG members.
Cross-check whether the SHG members have really understood what is meant by “institutions”, “importance of linkages” and “intensity of linkages”.

Brainstorm and identify all institutions they are in touch with - within and outside the village - and write them down on a separate sheet of paper. Do not list them with numbers, as this may indicate priorities. Do not list institutions if participants are only aware of their existence without any established contact with them or institutions to which they have individual contact and not a group contact.

Ask the SHG members to prioritise the institutions mentioned with regard to their importance (high, medium, and low) for the SHG. Note down the name of each institution on the appropriate size of the chapati.

Identify the degree of intensity of contact between the SHG and the institutions by putting the chapatis in the three different circles (I, II or III). Let participants move the chapatis within the three circles until they come to a consensus.

Crosscheck by verifying and clarifying their choices.

Stick the chapatis with glue.

---

**Chapati Diagram: Features of Linkages and their Scores**

- **A**: High importance
  - Score: 3
- **B**: Medium importance
  - Score: 2
- **C**: Low importance
  - Score: 1

---

I. Strong interaction, very good rapport, frequent/regular contact, high accessibility, benefiting very much from each other, mobilising each other.
   - Score: 3

II. Some interaction, continuous but not regular contact, not benefiting very much from each other.
    - Score: 2

III. Only sporadic contact, only knowing each other.
    - Score: 1
Discuss their plans for building and strengthening linkages in the future, based on the results, e.g., if they have indicated that a relationship with an institution is important to them but their interaction is weak, then they may discuss why this is so and what they can do to change the situation.

2. Instructions for data processing
Enter the results of the chapati diagram in the data processing sheet following the sequence given below.
- Give codes for each SHG, indicating its age (e.g., 1, 3, 5) and its number within the sample (1, 2, 3).
- Allot one row for each linkage and one column for the importance of the linkage, one for strength of the contact, and one for the score of the linkage.
- Enter the importance the SHG has attributed to its linkage with a particular institution (A, B or C) and the strength of the contact as perceived by the SHG (I, II or III) in the respective cell of the table.

For each linkage, multiply the scores for importance (A = 3; B = 2; C = 1) by the scores for contact (I = 3; II = 2; III = 1) and enter the result in the respective column “score”.
- Sum up all the scores to arrive at a total score for the SHG (except for the linkage with MYRADA)
- Count all the linkages of the SHG (except for the linkage with MYRADA) and enter the result in the last row of the table.

---

**Data Processing Sheet**
(Example for a one-year old SHG)

<table>
<thead>
<tr>
<th>Name of SHG: Akka Mahadevi</th>
<th>Facilitator: N. Ram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village: Kithur</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institution</th>
<th>Importance</th>
<th>Contact</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Cooperative</td>
<td>A</td>
<td>I</td>
<td>9</td>
</tr>
<tr>
<td>Agriculture Department</td>
<td>A</td>
<td>I</td>
<td>9</td>
</tr>
<tr>
<td>Anganwadi</td>
<td>A</td>
<td>I</td>
<td>9</td>
</tr>
<tr>
<td>Apex Body</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>Bank</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>Bank (other)</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>Block Development Officer</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>Education Department</td>
<td>C</td>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>Forest Department</td>
<td>C</td>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>Gram Panchayat/Zilla Panchayat</td>
<td>B</td>
<td>I</td>
<td>6</td>
</tr>
<tr>
<td>Horticulture Department</td>
<td>B</td>
<td>I</td>
<td>6</td>
</tr>
<tr>
<td>Hospital</td>
<td>B</td>
<td>I</td>
<td>6</td>
</tr>
<tr>
<td>Karnataka Electricity Board</td>
<td>B</td>
<td>I</td>
<td>6</td>
</tr>
<tr>
<td>School Betterment Committee</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>School</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>Sericulture Department</td>
<td>A</td>
<td>II</td>
<td>6</td>
</tr>
<tr>
<td>Other SHG 1</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Other SHG 2</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Other SHG 3</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Taluk Office</td>
<td>C</td>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>Temple Committee</td>
<td>C</td>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>Veterinary Department/Hospital</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Village leaders</td>
<td>C</td>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>WDA</td>
<td>C</td>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>Weaving Association</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Youth Association</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>B</td>
<td>II</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>MYRADA</td>
<td>A</td>
<td>I</td>
<td>9</td>
</tr>
<tr>
<td>No. of linkages:</td>
<td></td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

*The shaded cells indicate the essential linkages for each SHG by the end of the 3rd year; see targeted achievements*
3. Instructions for preparing the data summary sheets

Enter the scores from the data processing sheets into the data summary sheet as follows:

- Make sure that only data for SHGs of the same age is entered in the respective tables.
- Allot one row for each institution (in alphabetical order if possible).
- Allot one column for each SHG, one column for the sums of scores ($S^1$) and one column for the average scores ($æ^2$).
- Copy the scores for the linkages from the data processing sheets of each SHG in a given age category into the respective cells in the table.
- Fill in the average of scores in each row in column (2).
- Calculate the average number of linkages per SHG.

<table>
<thead>
<tr>
<th>Institution</th>
<th>1/1 score</th>
<th>1/2 score</th>
<th>1/3 score</th>
<th>1/4 score</th>
<th>(...)</th>
<th>1/9 score</th>
<th>1/10 score</th>
<th>$S^1$</th>
<th>$æ^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Cooperative</td>
<td>2</td>
<td>9</td>
<td>(...)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>1.5</td>
</tr>
<tr>
<td>Agriculture Department</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
<td>(...)</td>
<td></td>
<td></td>
<td>19</td>
<td>1.9</td>
</tr>
<tr>
<td>Anganwadi</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td>9</td>
<td>(...)</td>
<td></td>
<td></td>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>Apex Body</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td></td>
<td>(...)</td>
<td>6</td>
<td></td>
<td>58</td>
<td>5.8</td>
</tr>
<tr>
<td>Bank</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>(...)</td>
<td>9</td>
<td>9</td>
<td>79</td>
<td>7.9</td>
</tr>
<tr>
<td>Block Development Officer</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>(...)</td>
<td>4</td>
<td></td>
<td>11</td>
<td>1.1</td>
</tr>
<tr>
<td>Education Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>Forest Department</td>
<td>4</td>
<td></td>
<td>1</td>
<td></td>
<td>(...)</td>
<td></td>
<td></td>
<td>12</td>
<td>1.2</td>
</tr>
<tr>
<td>(...)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watershed Development Association</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(...)</td>
<td>9</td>
<td></td>
<td>9</td>
<td>0.9</td>
</tr>
<tr>
<td>Weaving Association</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>(...)</td>
<td></td>
<td></td>
<td>11</td>
<td>1.1</td>
</tr>
<tr>
<td>Youth Association</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>50</td>
<td>64</td>
<td>44</td>
<td>(...)</td>
<td>68</td>
<td>56</td>
<td>590</td>
<td>59</td>
</tr>
<tr>
<td>MYRADA</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>(...)</td>
<td>9</td>
<td>9</td>
<td>82</td>
<td>8.2</td>
</tr>
</tbody>
</table>

The data summary sheet may be used by staff to compare SHGs of the same age category across the project for their number and strength of linkages with various institutions, e.g., the blank cells in each column indicate that the SHG has no linkage to a particular organisation, low scores indicate that the SHG has weak and insignificant linkages with institutions. The shaded cells indicate linkages which are essential to the SHG described previously as targeted achievements.

4. Instructions for data analysis

Enter the results from the data summary sheets in the data analysis sheet as follows:

- The first column lists various institutions with which SHGs can link up. Columns 2, 3 and 4 stand for 1, 3 and 5 year old SHGs.
- Copy the average row scores from the data summary sheets into the respective cells of the table.
- Calculate the total sum of average scores per SHG-age and enter the results in the respective row. Also enter average number of linkages per SHG-age into the respective cell of the table.

### Data Analysis (Example)

<table>
<thead>
<tr>
<th>Institution</th>
<th>£ score £1 year</th>
<th>£ score ≥3 years</th>
<th>£ score &gt;5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Cooperative</td>
<td>1.5</td>
<td>3.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Agriculture Department</td>
<td>1.9</td>
<td>2.9</td>
<td>3.9</td>
</tr>
<tr>
<td>Anganwadi</td>
<td>4.9</td>
<td>5.1</td>
<td>3.7</td>
</tr>
<tr>
<td>Apex Body</td>
<td>5.8</td>
<td>5.3</td>
<td>8.7</td>
</tr>
<tr>
<td>Bank</td>
<td>7.9</td>
<td>8.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Bank (other)</td>
<td>–</td>
<td>–</td>
<td>1.5</td>
</tr>
<tr>
<td>Block Development Officer</td>
<td>1.1</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Education Department</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Forest Department</td>
<td>1.2</td>
<td>2.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Gram Panchayat/Zilla Panchayat</td>
<td>5.3</td>
<td>6.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Horticulture Department</td>
<td>1.0</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Hospital</td>
<td>3.2</td>
<td>5.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Karnataka Electricity Board</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>School Betterment Committee</td>
<td>1.8</td>
<td>2.7</td>
<td>0.2</td>
</tr>
<tr>
<td>School</td>
<td>4.6</td>
<td>3.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Sericulture Department</td>
<td>–</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>SHG 1 (other)</td>
<td>6.4</td>
<td>4.4</td>
<td>4.2</td>
</tr>
<tr>
<td>SHG 2 (other)</td>
<td>1.9</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>SHG 3 (other)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Taluk Office</td>
<td>1.5</td>
<td>2.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Temple Committee</td>
<td>1.2</td>
<td>1.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Training Institutes</td>
<td>1.7</td>
<td>2.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Veterinary Department/Hospital</td>
<td>2.6</td>
<td>2.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Village Leaders</td>
<td>–</td>
<td>–</td>
<td>2.0</td>
</tr>
<tr>
<td>Watershed Development Association</td>
<td>0.9</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Weaving Association</td>
<td>1.1</td>
<td>1.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Youth Association</td>
<td>1.7</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Others: Rotary</td>
<td>–</td>
<td>–</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
<td><strong>66</strong></td>
<td><strong>79</strong></td>
</tr>
<tr>
<td><strong>MYRADA</strong></td>
<td><strong>8.2</strong></td>
<td><strong>8.2</strong></td>
<td><strong>8.4</strong></td>
</tr>
<tr>
<td><strong>No. of linkages</strong></td>
<td><strong>10</strong></td>
<td><strong>12</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

The data analysis sheet may be used to assess whether project-wide targets for linkages have been achieved for different institutions. The table indicates which institutional linkages are generally strong in the project and which are weak. Whenever institutional linkages have been found to be weak or insignificant, the NGO should reinforce its efforts to improve these linkages.

Prepared by:

**Anke Schuermann**

Participatory impact monitoring (PIM) was first introduced in the early 1990s by development institutions based in Germany. Since then, this methodology has been used by many agencies in monitoring the impact of development projects. PIM is the continuous observation, systematic documentation and critical reflection of project impact. It is done by the project staff and target groups, using self-generated survey results [see related topic on An NGO-Designed Participatory Impact Monitoring (PIM) of a Rural Development Project on page 223].

The main objective of the Participatory Resource Management Project (PRMP) in Vietnam is to improve the standard of living of the poor mainly by increasing crop and livestock production and by improving the access to social infrastructure. The major components are credit, labour-based roads, irrigation and support to extension, management and participatory processes. The project has introduced and actively used participatory rural appraisal (PRA) methods in project design, implementation and evaluation. Thus, it provides a good basis to test PIM for further development of the methodology.
Steps of Participatory Impact Monitoring (PIM)

1. Brainstorming with project staff on positive and negative impacts of the project
2. Discussion with villagers on project impacts (positive and negative)
3. Decision on impacts to be monitored
4. Development of indicators, questionnaires and tools
5. Decision on sampling procedure
6. Pre-test of questionnaires and tools
7. Collection of data
8. Analysis and assessment of results
9. Joint reflection on results and methodology
### Positive and Negative Impacts of Participatory Resource Management Project (PRMP)

<table>
<thead>
<tr>
<th>Perceptions</th>
<th>Positive impacts</th>
<th>Negative impacts</th>
</tr>
</thead>
</table>
| **Project staff** | - Higher crop yields  
- Stable market for produce  
- Knowledge on crop and livestock production  
- Improvement of production skills and income  
- More stable water supplies  
- Higher capacity in the operation and maintenance of irrigation schemes  
- Awareness of women on the use of loans  
- Better education levels and gender equality for women  
- Increased women’s role in decision-making | - New agriculture technologies may harm the environment (agricultural chemicals)  
- Inadequate investment on irrigation schemes  
- Small loan size per borrower, short loan repayment period and high interest rates  |
| **Villagers** | - Increase in rice yields  
- Increase in number of households with surplus rice production  
- Better management and maintenance of irrigation canals  
- More consultation and exchange of information among villagers  
- Trained women have more knowledge and experience and teach their husbands  
- Women are able to attend meetings; socialise (wear nice clothes and sing) and interact more  
- Women are better able to manage credit  
- Women’s union supports women and enhances their capacity for credit management  
- Families can afford to send children to school and educate them to higher levels  
- Families can put money aside as savings | - Increase in workload of farmers due to double-cropping of rice  
- Conflict among villagers about alternative uses of water (turbine vs irrigation)  
- Increased indebtedness of farmers  
- Men use the credit of women for other purposes  
- Some become poorer; cannot repay credit (buffalo died, etc.)  
- Increased production but marketing is a problem  
- Lower market prices for produce |

#### Selecting Impact Indicators and Defining Data Collection Tools

The core team deliberated on a number of possible impact indicators. In view of the limited resources, agreement was reached on a manageable list of impact as follows:
- Increased role of women in decision-making in the household and the community.
- Increased capacity of Village Development Boards (VDBs) to formulate and implement village development plans in a participatory manner.
- Improved food security of poor farmer households.
- Increased daily intake of nutritionally balanced food by project beneficiaries.
- Improved delivery of vital social and technical services to poor farmer households.

The survey units were defined and decision was taken on the sampling procedure and the minimum sample size.
The PIM Process: Steps for Developing Impact Indicators

Write down the final formulation of the impact statement.
Example: Increased role of women in decision-making in the household.

Identify important terms and define each term in a simple manner.
Example:
Role: Accepted position a person has in society (family, village, etc.)
Decision-making: Decisions on attending meetings; management of loans (how to utilise them, how to repay, etc.); buying and selling of products; and selection of the breeds of animals to rear.
Household: People living under one roof.

Identify one or more indicators to measure the impact.
Example: The percentage of women who acquired a stronger position to decide the following has increased:
- whether to attend village meetings or women–related training;
- how to manage loans;
- which products to buy and to sell; and
- which breeds of animals to rear.

Identify what unit is relevant for the impact.
Example: Household, with both husband and wife.

Determine whom to ask the questions to.
Example: The woman (wife) in the household.

Select the method to be used (questionnaire or PRA).
Example: An interview method – an interview sheet with illustration was used. The respondents (women) were asked to rate themselves in relation to the man (husband), in terms of decision-making in the household. They could then rate themselves either below, at par, or above the man.

Select a sample that will allow comparisons of changes over time, or differences across populations or areas.
Example: A triangulation sampling method was used.

Finally, explain the limitations and why certain indicators were used.
Clarify certain assumptions taken in the study.
Assessment of Results

The following were the key findings:

- Role of women in decision-making at the community level increased.
- No significant impact on women's role in decision-making at the household level.
- Food security and quality of food improved.
- Project impact on poverty was significant. In villages where the project has operated for five years, villagers estimated that the project had contributed about 25% of overall external efforts for poverty reduction, while utilising only 10% of external funds.

Reflections on PIM Methodology

Two joint reflection workshops were organised - one with villagers, VDB members, and farmers/women's groups, and another with the project staff - to present and discuss the preliminary results. Based on the discussion in the workshops, the following observations were made on the PIM methodology.

- The key to successful PIM is not whether a project is run by the government or by non-government organisations (NGOs), but whether the project design is based on participatory approaches.

Pre-test of questionnaires and data collection

The questionnaires for data collection on different indicators were pre-tested in one of the project villages. Some questionnaires had to be revised and fine-tuned on the basis of the pre-test. Three categories of villages were selected for data collection based on when the project started its activities [1995, 1997, and 1999 (control group)]. Selected households, VDB, women's groups, water users' groups and village officials were interviewed.

Sampling Procedure

<table>
<thead>
<tr>
<th>Triangulation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>About 9-10 households were selected randomly from four different income categories from each village, in a total of nine villages. These nine villages consisted of three villages per cluster in three different geographical areas. In each cluster, villages were selected on the basis of the length of the project in the area (i.e., 1, 3, or 5 years). This sampling allowed for two types of comparisons:</td>
</tr>
<tr>
<td>- based on the length of the project's presence in the village; and</td>
</tr>
<tr>
<td>- across clusters, or geographical/topographical conditions.</td>
</tr>
</tbody>
</table>
Some level of prior experience of project staff in PRA is essential since PRA methods and philosophy emphasise:
- an inherent belief and confidence in the ability of people to objectively perceive and assess qualitative changes;
- an appreciation on the part of the researcher for non-parametric measurements (e.g., rating scales) as opposed to relying solely on parametric measurements (e.g., amount of credit given, repayment rates); and
- a sense of ownership among beneficiaries.

PIM should be introduced at least one year after initiation of the project because it takes time for both the staff and the target beneficiary groups to understand the directions of the project and which impact indicators to use.

The project had several negative impacts on the beneficiary household, but the most important ones had not been identified by the project staff (e.g., increased indebtedness of farmers, marketing problems and the use of women’s loans by men for other purposes).

Although the methodology proved to be useful for impact monitoring, further simplification, particularly for data processing and analysis, will be needed.

The indicators and questionnaires were relatively good in assessing the impact of PRMP in the areas of gender, food security and nutrition, institutional capacity-building and service delivery. However, the methods should be further fine-tuned to assess the capacities of village-level institutions (VDBs, women’s groups, etc.) in planning and implementing village development plans in a participatory manner.

The development of indicators was heavily influenced by the core team from the district-level monitoring and evaluation units, who require greater quantitative accuracy than would be feasible by institutions such as VDBs. There is thus a need to bring this analysis down to the beneficiary level (VDBs, farmers’ groups) so that community groups are empowered to monitor the impact of the project.

Prepared by:
Ganesh Thapa

With contributions from:
Tony Quizon,
Christian Berg and
Jon Dean

RESOURCE BOOK PRODUCED IN A PARTICIPATORY WRITESHOP ORGANISED BY THE INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (IFAD), ASIAN NGO COALITION FOR AGRARIAN REFORM AND RURAL DEVELOPMENT (ANGOC), CENTRE ON INTEGRATED RURAL DEVELOPMENT FOR ASIA AND THE PACIFIC (CIRDAP), SOUTH EAST ASIAN RURAL SOCIAL LEADERSHIP INSTITUTE (SEARSOLIN), MYRADA AND INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION (IIRR).
Institutions across the world are being asked to orient or re-orient their work towards poverty alleviation, to account for resources and to demonstrate the impact of their work. Achieving widespread and lasting impact are important indicators.

Scaling-up has multiple dimensions and contexts - institutional, spatial, economic, temporal and technological. There must always be a developmental context for scaling-up, i.e., empowerment and social change.

The Multiple Dimensions of Scaling-Up

<table>
<thead>
<tr>
<th>Temporal</th>
<th>Spatial</th>
<th>Economic</th>
</tr>
</thead>
<tbody>
<tr>
<td>At what stage</td>
<td>Target groups</td>
<td>Resource</td>
</tr>
<tr>
<td>Sustainability</td>
<td>Agro-ecology</td>
<td>Cost-benefit</td>
</tr>
<tr>
<td></td>
<td>Site specificity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional</td>
<td>“Vertical” and “horizontal” networks</td>
<td></td>
</tr>
<tr>
<td>Stakeholders and catalysts</td>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Key players</td>
<td>International</td>
<td></td>
</tr>
<tr>
<td>Policy</td>
<td>Local (informal social networks)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winners and losers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific targets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social risk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2 Scaling-up involves a learning and a participatory process and is about people. Because of the development and political contexts of going to scale, there is often a potential tension between participation and scaling-up.

3 The technology, the process and the institutional/methodological and policy innovations all go together (are integrated) in the scaling-up effort. The degree by which any of these are scaled up varies however, depending on the major concern/activity at each stage of the scaling-up process.

4 It is not technologies that are scaled up but processes and principles behind the technologies/innovations. This is consistent with the belief that scaling-up is not just replication, but involves adaptation and learning.

5 Going to scale, in general, connotes vertical movements across institutional levels and/or horizontal spread.

**Horizontal Scaling-Up** refers to the geographical spread, covering more people and communities. It involves expansion within same sector or stakeholder group. Others refer to it as a scaling-out process across geographical boundaries. Achieving geographical spread is also done by scaling down, i.e., by breaking down big programmes into smaller programmes/projects and thereby increasing participation and decentralising accountability.

**Vertical Scaling-Up** refers to the spread higher up the ladder. It is institutional in nature and involves other sectors/stakeholder groups in the process of expansion, e.g., micro-macro links from the level of grassroots organisations to policymakers, donors, development institutions and investors at international levels.
6 The higher up the institutional levels (vertical scaling-up), the greater the chances for horizontal spread; likewise, the farther geographically (horizontal scaling-up), the greater the chances of influencing those at the higher levels.

7 While these institutional and spatial/geographic dimensions normally are central to the discussions and strategies for going to scale, other aspects have been recognised as critical and integral to the whole process and cannot be treated in isolation. These are the technological, economic, temporal and equity aspects.

8 Scaling-up is really about communicating options to people. However, we need to balance the introduction of options with efforts to nurture farmers’ ability to adapt. We also need to nurture local capacities to make better decisions.

Power or the ability to influence decisions determines what is scaled up. It is often the concerns of the more influential block that get scaled up. This dominant block could be the policy-makers, the aid supporters, the privileged professionals (researchers, scientists, academics, extensionists, etc.) or the local people themselves who are able to organise and position themselves strategically. If the overall context of scaling-up is bringing development to the poor, then people’s empowerment is a critical dimension in the process.

9 Scaling-up almost always has a “power” and a development dimension - of contributing to social change and people's empowerment. Benefits accrue to different actors at different levels of the process. Scaling-up therefore should be a subset of (or supportive of) people's movements, where the driving force can come from either the recipient (demand-driven) or from groups convincing the recipient (supply-driven).
Building the capacity to innovate in order to facilitate local adaptation to changes is important to the scaling-up process. As such, scaling-up is integral to (and a stage in) the adaptive/active learning process – the learning to expand stage of the learning process approach to programme development as described by David Korten (see box below). The learning process approach to program development proceeds through the three stages, with each stage involving a different learning task, e.g., effectiveness, efficiency and expansion.

The Learning Process Approach

The program learning curves where it is expected that (i) some effectiveness will be sacrificed for efficiency and expansion and (ii) efficiency will likely suffer with expansion due to trade-offs with expansion requirements.

Participation of farmers and technicians in a process of exchange of knowledge, experimentation and adaptation strengthens local capacity to innovate. It is this participation which leads to success in local development.

Scaling up this process of strengthening innovative capacity assures sustainability because of an improved capacity to adjust to changing conditions (e.g., when the current technology is no longer appropriate).
The challenge of bringing development to a great number of people, particularly to the poorer segments of communities, can be addressed by going to scale – and can be speeded up by planning the scaling-up process instead of simply letting spontaneous diffusion to happen.

### Issues Important and Critical to Success and Failure in Scaling Up Projects

- **Projectisation**: Most projects in the past were very project-oriented rather than process-oriented. This means that implementers were over-conscious about meeting targeted outputs imposed by project management and financiers. The result was that, once the project ended and support was withdrawn, the beneficiaries did not carry on the projects.
- **Sustainability**: If the project is viewed as something to be accomplished in a span of time, the tendency is to rush, to comply with certain requirements and attain preset goals. Once the implementers assumed they have accomplished enough for the project, they pack and go. Sustainability, then, becomes a dilemma.
- **Partnership-Building**: Analogous to collaboration, partnership is active collaboration of individuals or groups involved from the onset of the undertaking until its accomplishment. The issue of ownership is also closely attached to "partnership". When the terms of the partnership are not clear, the ownership issue becomes a problem.
- **Resource Constraints**: We need to locate ourselves strategically in order to maximise the use of limited resources.
- **Deterioration or Enhancement of the Quality of Processes and Outcome**: In scaling up projects, we are faced with two possible scenarios; either the quality of outcomes are deteriorating and the processes are short-changed or they are enhanced, yielding more positive outcomes.

**Source**: Landcare, Philippines

### Spontaneous and Planned Diffusion

A natural spread of initiatives is referred to as spontaneous diffusion or unplanned scaling-up. It just happens (A to B in the illustration). With proper interventions, these initiatives at Point A can be further scaled up from Point B to Point C (planned scaling-up expansion). The potential to expand the initiatives beyond Point C to Point D can be constrained by a "context roof", e.g., policies, land tenure arrangements, market forces, etc. Constraints could be institutional, political, technological and methodological in nature. Being able to overcome this context roof will determine if the highest potential level of scale is achieved.

The challenge of bringing development to a great number of people, particularly poorer segments of communities, can be addressed by going to scale – and can be speeded up by planning the scaling-up process instead of simply letting spontaneous diffusion to happen.

**Other factors that will facilitate or impede the process of going to scale**

- Social organisation and processes
- Infrastructures
- Markets
- Stakeholder track record of experience
- Institutional mandates
- Policies and capacities (including human and non-human resources)
- Cultural and religious leanings
- Peace and order situation
14 In order to succeed in scaling up our successes we need to engage in more participatory and farmer-centered approaches, pursue inter-institutional collaboration, engage in partnerships and be conscious of markets and policy constraints. We would, consequently have to de-emphasise single-orientation approaches, or inflexible stances. Replication is not the way to scale up!

15 The urge to scale up is often associated with the need to expand initially successful pilot projects/star cases. There are driving forces or “sparks” that cause technologies, processes, principles, programmes, organisations, etc. to be scaled up. Individuals, with vision and drive can also serve as sparks. While the initial gains/successes continue to be recognised as providing the sparks, the “timing” needs to be properly analysed. Sparks come unexpectedly – and they tend to come from everywhere.

16 Scaling-up in the ultimate analysis is about people having a vision for themselves.

A Framework for Planning to Go to Scale

Facilitating Factors

Visionaries

Need-based

Intrinsic benefits

SPARKS

Small-scale initiative/experience

SCALING-UP STAGE:
Stakeholders building and telling stories
- Culturally appropriate
- Indigenous transfer routes
- Simple, cheap and adaptable technology
- Source credibility
- Others

Others

Limiting Factors

Evolution of roles, rules and institutions in the process of scaling up with respect to what needs to be done less and what needs to be done more, and the assumptions for determining these, as the process progresses.

Compiled by: Julian F. Gonsalves and Ric Armonia, based on the outputs of the workshops organised by IIRR on behalf of the CGIAR NGO Committee and the Global Forum for Agricultural Research, October 1999 and April 2000.
PME Process Practised at the Field Level: Learning from the LIFE Project

A participatory approach to monitoring and evaluation was initiated by management of the Agricultural and Natural Resources (ANR) Sector of CARE-Bangladesh to strengthen the interactive learning process among participants and field workers. The LIFE (Locally Intensified Farming Enterprise) project is managed by ANR. Its goal is to increase the food security of economically and socially vulnerable rural households. The project will address 126,000 people; 50% of them female. The majority of the project participants have up to one acre cultivable land.

Participatory monitoring and evaluation (PME) is an integral and vital part of extension work. It is an effective tool for strengthening decision-making processes and measuring the outputs. The LIFE (Locally Intensified Farming Enterprise) project provides technical support to farming families in agriculture [cereal crops (rice, wheat), vegetables], fisheries (pond fish and rice-fish culture, fish nursery) and agroforestry. The extension system of the LIFE project aims to enhance the decision-making capacity of participants (direct beneficiaries of the project) by improving their knowledge and skills through critical analysis. The LIFE project started piloting the PME process in Bangladesh in 1998.

Design phase
The PME core team was formed with the following objectives:
- to train the staff on PME facilitation skills;
to direct the ongoing PME process by re-designing its process and tools;
- to provide in-house follow-up support on common monitoring and evaluation goals;
- to provide training-of-trainers (TOT) support in the project and across the sector; and
- to share experiences.

**Defining the project PME goal**

The goal is to develop a PME process which will enhance the capabilities of participants and staff to generate, analyse and use information for better decision-making in order to increase productivity and incomes of the participating farmers.

**Piloting the PME system in the project**

The PME process was piloted in 1998 in two thanas (government administrative unit), one each in Rajshahi and Kishoregonj districts, to acquire confidence, increase facilitation skills, identify appropriate tools and indicators, and establish ownership of participants.
The central QuEST team (Quantitative/Qualitative Evaluation Strengthening Team) of ANR assisted the project core team in providing training, communicating and sharing different issues and ideas/experiences on the PME process of different projects.

During the annual review of the pilot PME process, the team observed that the system is complex and time consuming. During the pilot phase, all components' interventions had been included in PME, incorporating both quantitative and qualitative data. It was difficult to accomplish all components in one session and to understand all indicators and tools. Based on these observations, the PME process was simplified.

PME has increased farmers' analytical skills. They can now analyse problems and project activities more critically. PME has also increased farmers' confidence and ownership of the project activities.

Implementation phase

Expansion strategy
In 1999, the project was scaled up in 6 thanas (3 thanas in each of the two districts). A staff-to-staff training strategy was followed to build staff capacity in PME practice. Also, cross visits were arranged to learn from other project PME sessions.

Information flow
A bottom-up approach to information flow is established in order to maximise use of information for decision-making at all levels. Data are analysed at the farmer group level during the PME session. Then they are compiled at the thana level and a report is prepared. The data are again compiled at the district level, then the final report is prepared, and shared at all levels.

Process review and evaluation
An annual review of PME activities involving different stakeholders is conducted to find out how to improve the quality and articulate future directions of PME practices. An internal review process is established to institutionalise the PME process. Through this review, participants share their experiences and identify successes and mistakes. Thus, learning opportunities are created at all levels. This process of review and evaluation is practised regularly to bring qualitative improvement in the PME process.

PME at the Field Level
Participants use PME to articulate their existing situation. The PME cycle follows the aman (July-December) and boro (January-June) seasons. The project baseline is conducted once for each group of farmers, both male and female. Each group of farmers is provided with one year support and a new group
is recruited. During the baseline study, problems are identified and prioritised. Then the planning session is conducted and farmers identify different activities and also determine an appropriate time to accomplish the same. Field trainers provide support accordingly. Seasonal evaluations are done with all the farmers’ groups.

**Application of tools**

The project participants now use tools such as different sizes of wooden fish, a small bottle symbolising pesticides, wooden pest, rice plant, vegetable seeds, different types of fertiliser packets, seedlings/saplings, and different drawings (irrigation pump for boro season, umbrella for aman season, and different types of faces indicating “very happy”, “moderately happy” and “unhappy”).

The session is conducted on the ground and all information is visualised and explained by the farmers; reasons for being happy, moderately happy and unhappy, and for variation in production are also discussed, thus ensuring learning. Through this process, participants share their experiences and are informed about the utility of other practices, which helps improve decision-making and planning.

At the end of the session, the field staff summarises and helps in documenting the information in a record book, which is kept with participants. The staff makes copy for the staff or his/her own use. The participants’ record book is kept with a participant so that all participants have access to it at any time. Then, all field staff compile information from the record books. They prepare the reports by thana and district and circulate these at different levels.
### Example of PME Baseline

<table>
<thead>
<tr>
<th></th>
<th>Paddy yield</th>
<th>Vegetables</th>
<th>Tree resources</th>
<th>Nursery</th>
<th>Pond-fish culture</th>
<th>Rice-fish culture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jul–Dec</strong> (Aman)</td>
<td>![Image]</td>
<td>![Image]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jan–Jun</strong> (Boro)</td>
<td>![Image]</td>
<td>![Image]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Why are we unhappy?

- Decrease in paddy yield
- Top soil is very hard
- Fertiliser dose is not known
- Difficult to identify good seed which is not available
- Non-availability of organic fertiliser: also preparation and use not known
- Too much pest attack
- Irrigation problem
- Do not know modern cultivation techniques

#### What problems do we face?

- Low price of vegetables in the peak season
- Low yield or decrease in yield
- Good vegetable seed not available
- Pest attack
- Irrigation problem
- Fruits drop at the initial stage
- Pest attack
- Fruit size has reduced
- Do not know how to plant and take care of trees
- Do not get good fry/fingerlings
- Decrease in fish size (pond fish)
- Fishes do not grow fast
- There is no water during April–May

*Represents one individual group member*

### Example of Activity Plan for the Aman Season*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable seed and vegetable cultivation</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

*Learning session on different topics planned in different months to overcome the identified problems in the baseline.*
Shortcomings and reliability

- Qualitative aspects
  The current PME design focuses mainly on changes in the status of farmers (evaluated as happy, moderately happy and unhappy) and does not provide detailed data on production, net returns and cost-benefit, etc. However, the PME results meet staff and project partners' expectations for qualitative and quantitative considerations as listed in the project logframe.

- Quantitative aspects
  An in-depth socio-economic baseline is done to assess the present status thereby facilitating project midterm and final evaluations. To satisfy the production and cost-benefit information of the logframe, the project carries out a short sample survey at the end of each season. This also helps cross-check the PME outputs.

- Reliability
  The participants themselves cross-check when the information is shared in the group. The quantitative sample survey creates scope for cross-checking outputs from the PME process. This ensures the reliability of information.
Lessons Learned

Participants level
- Builds farmers’ confidence and enhances knowledge of and ability to use PME tools.
- Improves data reliability.
- Enhances problem identification skills.
- Through increased sharing, involvement of participants in different project activities increases.
- Ensures active participation.
- Creates team spirit and builds group dynamism.

Staff level
- Project staff need good facilitation skills and technical knowledge.
- Staff are able to identify community problems and plan to address those.
- Analytical skills of staff increases.
- Resistance is often encountered from staff initially, due to lack of clear understanding of the value of the PME process. The attitude changes when the benefit of the process is realised.

Tools and indicators
- Identification of appropriate tools and indicators is not easy. Moreover indicators identified by the project staff are often not acceptable to the participants.
- Tools need to be modified continuously.
- Tactile tools are more acceptable and effective than visual tools.

Process
- PME design should be flexible and adaptive.
- During the rainy season, it is difficult to find a comfortable place to conduct the PME session.
- Adoption of the process in the initial stage takes considerable time.
- It helps to develop analytical skills.
- Frequent review is required to strengthen the PME process.
- PME enables reflection on the extension process and management.
- PME creates opportunities to check reliability of the information.
- Institutionalising the PME process takes time. The process has not yet been fully institutionalised particularly at the farmers’ level; appropriate follow-up mechanisms could not be established. Yet, the field staff consider the “go slow strategy” to be good for beginners as it takes time to win the confidence of the participants and to establish a good process.

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The PME process follows the “apply-learn-apply” mode and contributes to the extension process of the project. PME creates an opportunity for interactive learning as it is designed and practised by and for the participants, according to their conditions and needs. The project staff also benefits through implementation exchange. They can understand both the needs of the participants and the effectiveness of extension activities, leading to a more farmer-led extension approach.
Building Participation into Benefit-Cost Analysis

Project benefits and costs can be calculated at the aggregate level, using a full-fledged benefit-cost analysis (BCA), or at the disaggregated level of project activities (to choose between several alternative options). But the latter is hardly ever done, and the former is usually done in an isolated and non-participatory manner. Yet, a participatory study of project benefits and costs can yield useful information from which the entire project team can benefit. To exploit its full potential, however, project management and project economists need to address the analysis differently.

Participation in the analysis of project benefits and costs can be increased in two ways: by discussing and presenting the aggregate BCA to project (design or implementation) team members; and by discussing the potential costs and benefits of different (technical or institutional) options with communities.
Analysing Project Benefits and Costs

Benefit-cost analysis (BCA)

A BCA looks at all project costs and benefits. This is usually done during project design – to assess whether the proposed project will be “worth” the investment – and/or at the evaluation stage – to check whether the actual project benefits were more than the investment. It calculates the internal rate of return (IRR) (see box on Mechanics of BCA, step 5). Rightly or wrongly, many funding agencies do not like to fund projects without “acceptable” IRRs.

At the design stage, a BCA is a convenient and comparable way for assessing (and distinguishing between) several different types of projects. It can detect those which may use up a lot of money but not provide lasting benefits – e.g., those which are “heavy” on overheads and administration costs and “light” on actual services delivered. But the real advantages come when a BCA is done along with project budgeting, time phasing and economic analysis, and when all these are discussed and shared with different stakeholders in the project.

The Basics

Benefit-cost analysis (BCA) checks to see whether the money spent on a project yields at least as much financial (or economic) benefit as it would if invested in the financial market at the going rate of interest. If only financial costs are taken, it is a financial BCA; if “economic” costs (i.e., opportunity costs) are used, it is called an economic BCA; if wider social and environmental benefits and costs are also considered, it is a social and environmental BCA – the most comprehensive of them all.

Marginal return analysis estimates potential costs and benefits associated with alternative (technical or institutional) options for the same project activity. For instance, choosing between different options to improve agricultural productivity, to improve non-farm employment and income, to check soil erosion, etc.

Mechanics of BCA

<table>
<thead>
<tr>
<th>Step 1:</th>
<th>List all project activities (proposed or actual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2:</td>
<td>Calculate all possible project costs over the project period. For each project activity, estimate benefits, which may continue to occur (well) beyond the project period (e.g., 10 – 30 years). The nature of costs and benefits determines whether it is a financial, economic or social and environmental BCA (see box on The Basics).</td>
</tr>
<tr>
<td>Step 3:</td>
<td>Aggregate project costs and benefits according to the year they accrue. This is quite easily done on a spreadsheet (e.g., Microsoft Excel).</td>
</tr>
<tr>
<td>Step 4:</td>
<td>Calculate annual net benefits by subtracting costs from benefits for each year.</td>
</tr>
<tr>
<td>Step 5:</td>
<td>Calculate the IRR of this series of annual net benefits. The IRR is the interest rate received for an investment consisting of costs (negative values) and benefits (positive values) that occur at regular periods (i.e., annually). This is done automatically by the IRR function in a spreadsheet software.</td>
</tr>
<tr>
<td>Step 6:</td>
<td>Do a sensitivity analysis by increasing costs and/or benefits by a certain percentage (10 or 20%) and check the impact on the IRR. If the IRR is more than the market rate of return even when costs are increased and benefits are decreased, the project is usually considered (“financially” or “economically”) robust.</td>
</tr>
</tbody>
</table>
Marginal Return Analysis

At a more disaggregated level, benefits and costs can be estimated for individual project activities, to compare and choose between alternative options. This analysis calculates the (potential) marginal rate of return from each alternative option, which is then added to the social, institutional and technical features of the option, to permit a more informed choice. Project communities can be used as a rich source of information on potential costs and benefits of each option, and the results can also be shared with them, to aid participatory decision-making.

How to Make BCA More Participatory

Suggestions for project management

Project design

- **Involve the economist from the start.** It is important to involve the economist from the start of project design, so that the details and logic of project activities (and their phasing) are clear to her/him. Bringing in the economist at the end can increase information demands on other project members, or, worse, result in a “superficial” BCA with no learning for the project design team.

Such learning could include the following:

- deliberate inquiry into the economic dimensions of project components may unearth contradictions, incompletely considered timelines, mismatches between budget allocations and planned activity, etc.;
- if the project budget and BCA do not reflect all project components, activities may not translate into outputs;

Limitations of BCA

- Tends to focus on tangible and monetary benefits and costs: Financial and even economic BCA (i.e., opportunity cost calculations) are easier to do than social and environmental BCA which calculates non-tangible returns to project investment such as capacity-building and “primary” goods like education, health and environmental improvement. Hence, these are often left out of calculations, especially if the IRR is acceptable with just the major tangible project benefits.
- Biased against projects where benefits occur later. Because discounting reduces the value of benefits that come later, the BCA is biased against projects where costs are incurred quickly and where benefits take time – such as capacity-building projects, or projects aiming at attitudinal and institutional change.
- Coverage and quality can vary. BCA can be done in “quick and dirty” ways, with heroic assumptions supporting superficial analysis of project benefits and costs. Also, the nature of benefits and costs included in the analysis and the extent of their measurement tend to vary according to the capability and inclination of the economist.

Benefit-Cost Calculations for Beneficiary Decision-Making

As a part of participatory project diagnosis and formulation, an engineer and an economist on an irrigation project in Guyana worked out the costs and benefits of two alternative engineering options: only to rehabilitate existing irrigation channels or to add new ones also. When presented to the beneficiary community, it chose the second one because of reduced transport costs. As it turned out, this option had the best marginal rate of return.
- many social, technical and institutional problems have an economic dimension to them, and many community-level actions are also driven (and hence constrained) by economic forces. An economic perspective on even seemingly non-economic issues could therefore be useful during team discussions to plan project activities.

- Discuss the BCA with the entire project team. Rather than leave the economist to produce the “numbers”, the BCA should be discussed with members of the project (design or implementation) team. This ensures that each project component is understood clearly by members of the (inter-disciplinary) project team.

- Coordinate the BCA, the budget and the economic analysis. Since all three use the same information, asking the same economist to do all three will save time and also reduce the risk of communication gaps.

**Strengths of BCA in Project Design**

If done well and in conjunction with project budgeting, time-phasing and economic analysis, the major strengths of BCA are the following.

- Lists project costs and benefits in one place. The budget and BCA provide two complementary ways of viewing all the different aspects of a project, including administrative overheads, financing routes, capacity-building budgets, specific project activities and contributions from other partners. It also brings various project components together, grounding them in cost and time lines which are important considerations of any project. When done in an open and participatory manner, it allows design team members to see how the institutional, social and technical features of a project fit together, especially across project phases.

- Clarifies detail. When the project design team is asked to specify time lines and cost details for proposed project activities, it can make them think a lot deeper about these issues. Often, contradictory assumptions about the same issue surface among design team members, prompting useful discussions.

- Provides a clear understanding of cash flows. Costs are important to any project. And, especially when funds have to move from one country to another, and at different periods of time, it is important to see how much has to move from where, when, how and why. And, so long as banks give interest, money will change value over time and it is important to see how this affects project funding.

**Project implementation**

- Assess potential benefits and costs of alternative options. Although engineers can produce cost estimates of technical options (say, for soil and water conservation measures or irrigation channel routes), it is useful to exploit the economists’ training and understanding of these potential costs and benefits. Not only will this ensure that all possible costs and benefits are included, but also that the most appropriate (of several possible) methods has been used to value them.

- Collect economic information in project monitoring and evaluation. If the necessary economic information is not collected systematically during the project period, several benefits may not be
evaluated by the end-of-project BCA. If so, additional resources may have to be spent to collect more information, or the BCA may end up being superficial for want of adequate information.

- **Re-assess benefit-cost situations annually.**
  Replacing assumed annual costs and benefits with actual figures can help assess project progress constantly, and can help suggest necessary corrective action.

### Project evaluation

- **Provide all possible information.** Complete and up-to-date monitoring and evaluation (M & E) information about different aspects of project implementation is a considerable help to the economist. Otherwise, the economist has to spend more time chasing information scattered across project offices and files - or worse, in the heads of project team members.

### Suggestions for Project Economists

#### Project design

- **Discuss issues with other team members.** A pre-project economic appraisal is not easy. Secondary statistics and fieldwork "numbers" need to be interpreted, to gain insights into their causes. Discussing these may help to clarify the nature of project action – or, in the case of post-project evaluations, even the lack of it!

- **Discuss each project component thoroughly.** Instead of making assumptions about project activities and implementation (which may not be always be true) discuss each component with the concerned member of the design or implementation team. Often, this brings out details that team members may already be very familiar with but the economist is unaware of them!

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**Engineering Costs Versus Economic Costs**

Engineers estimate the costs of project structures (e.g., check dams, school buildings, wells) differently from economists. They either use a fixed cost norm, which sometimes aggregates material and labour costs, or use only direct (financial) costs. Economists, in contrast, detail all possible costs and use opportunity costs rather than financial costs. Using an economic perspective and fresh information can deal with problems like the minimum wage being higher than the local wage, of depreciation rates being different for various components, and of local materials being cheaper than "standard" materials.
- **Analyse even intangible benefits and costs.** Listing all potential benefits and costs - whether measurable or not - can be useful, if not for the full-fledged BCA, at least for informing project team members. Measure all components as fully as possible; today there are a host of valuation techniques to assess social (“soft”) and environmental benefits and costs. Where full evaluation is difficult, cost-effectiveness is a useful option. But if monetary values cannot be estimated for all costs and benefits, make a point of listing these non-monetary costs and benefits in the BCA Report.

- **Get first-hand information from the field.** Rather than simply asking project team members, government officials or NGO staff, go to the field as much as possible to gain first-hand knowledge about different project components. Each project is different and past experience may not always fit the new case. Combining this information with past knowledge makes analysis easier, more accurate, and hence more meaningful.

- **Present the BCA, economic analysis and budget to the entire project team.** Discussing the details of the finished analysis with the team helps check whether or not different project components ‘hang together’. If not, more time may have to be spent sorting out contradictions and problems which are pointed out, one by one, as other team members find time to read and grasp the budget and BCA. Getting project team approval means that they understand and agree with the results - and saves confusion later.

- **Write a report.** A BCA usually ends up just as a technical annex in a project proposal document, often leaving out the assumptions made in the analysis. Specifying these details in a short report, written simply and clearly, helps other economists (e.g., doing the BCA at the end of the project) and project managers understand the logic underlying the figures.

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**MPA and Economic Information**

The methodology for participatory assessments (MPA) [see topic on Enhancing the “Assessment” in Participatory Assessments on page 179] can be useful in collecting the required economic information in a participatory manner and on a regular basis. Such information can include income from agriculture, animal husbandry, non-farm activities, forestry, etc.

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**Timber Versus Non-Timber Benefits from Forests**

Although many plantations aim at timber benefits, the fact is that high returns 10 or 12 years later have a relatively low value after time discounting (i.e., Rs. 1 million after 10 years is worth just Rs. 385,000 today, if discounted at 10%). Instead, it may be noted that revenues from selling (or charging for cutting) the grass that grows on protected plantations and the revenues from non-timber forest products comprise the bulk of the present value of forests.

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**Project Implementation**

- Discuss costs and benefits with the community. When working out economic benefits and costs for alternative technical options (i.e., their marginal rates of return), it is important to consult the community. Such local information is vital to making realistic and accurate estimates of the benefits and costs of alternative options. But it is equally important to share the results of these calculations with the community, to enable them to make informed choices.

- **Plan for participatory information collection.** Keeping in mind the need to do a benefit-cost analysis at the end of the project, design an economic information component for the project's
M & E system. Making this information collection a participatory exercise involving the project communities keeps the community informed about the economic aspects of project progress. Be sure to do a pilot test to ensure that the project staff and the project communities understand the system.

- **Leave room for self-monitoring by the community.** Beyond keeping it informed of project progress, the community can be involved in collecting and using the information related to the economic progress of the project. But this has to be designed carefully, taking note of which aspects are of direct interest to the community and which it therefore wishes to monitor itself.

**Project Evaluation**

- **Discuss information requirements with project staff.** A preliminary meeting with project staff at different levels helps them to understand the information needs of a BCA. It also helps pinpoint who has “what” information and to identify information gaps. It is also useful to decide appointments and time schedules for receiving information from different project staff. Check, in particular, for other studies and the report of the initial BCA, if done.

- **Meet the village communities.** It is vital to crosscheck information through field discussions with village communities. A random check of stated benefits (e.g., time-savings from new water sources) is useful to gain an idea of field reality.

**Community Monitoring versus Self-Monitoring**

During the design of the M&E system for a new watershed project in Karnataka, the workshop participants arrived at a long list of project activity and progress indicators. However, subsequent discussions revealed that most of these were of direct use to project field staff and villagers were expected to collect the information on their behalf. Such “community monitoring”, is not the same as community self-monitoring – which focuses on indicators that are important in the eyes of the direct users, the community.

**The Villager May Know Better!**

When checking fuelwood use in hill villages in Dehradun Valley, India, the economist found household women in one village estimating daily collection ranging from 10 to 40 kilograms per person. Having carried two 20 kg suitcases (i.e., the flight baggage allowance), it was difficult for the economist to imagine women carrying 40 kgs and walking up and down the steep slopes. He was ready to put it down to exaggeration given the lack of local measurement devices. Fortunately, an urge to check for himself drove him to physically lift previously collected fuelwood bundles neatly stacked behind a village house. Indeed he found each one as heavy as his suitcases. He decided to ask the woman how she carried two such bundles – she said, “Easy, I make 2 trips a day!”
- **Note intangible benefits.** Capacity-building and empowerment of village communities are difficult to check using conventional input-output M&E information. While most BCA overlook these aspects of project impact, it is important to list them in the BCA Report, even if monetary values cannot be attached to them.

- **Present and discuss the results.** Presenting findings to project staff is useful, not just to clarify issues and assumptions, but also to enable project staff to better understand the process and the emerging findings.

- **Write clear reports.** A thorough, clear and well-written report can be of use not just to project management, but also to programme managers interested in learning lessons from the assessed project.

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