

Evaluating the impact of participatory mapping activities

Participatory monitoring and evaluation



Enabling poor rural people to overcome poverty

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Cover:

Participatory evaluation of a community empowerment project for access to land,
Uttar Pradesh, India

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Foreword

The International Fund for Agricultural Development (IFAD) is an international financial institution and a specialized United Nations agency dedicated to eradicating poverty in rural areas of developing countries. Working with poor rural people, governments, donors, NGOs and many other partners, IFAD focuses on country-specific solutions to empower poor rural women and men to achieve higher incomes and improved food security. One of the challenges IFAD continues to face in its work is identifying effective ways to involve poor communities, particularly the poorest and most vulnerable, in planning, managing and decision-making about their natural resources.

This is especially important in working with pastoralists, indigenous peoples and forest communities, whose livelihoods are disproportionately threatened by climate change, environmental degradation and conflict related to access to land and to natural resources. To address these concerns, IFAD, in collaboration with the International Land Coalition (ILC), implemented the project for the Development of Decision Tools for Participatory Mapping in Specific Livelihood Systems (Pastoralists, Indigenous Peoples, Forest Dwellers) – Phase I, which ran from 2006 to 2009. The project produced *Good practices in participatory mapping*, a review intended to strengthen IFAD's knowledge base on participatory mapping, and *The IFAD adaptive approach to participatory mapping*, which provides guidance on the steps needed to implement participatory mapping in IFAD-supported initiatives.

Phase II of the project, Piloting IFAD's Participatory Mapping Approach for Specific Livelihoods (Pastoralists, Indigenous Peoples, Forest Dwellers) through Innovative Twinning Arrangements, aims to promote knowledge-sharing among different projects on participatory mapping, with a view to strengthening the impact of participatory mapping initiatives. In this regard, the project

focuses on: (i) the role of participatory communication in supporting the empowerment of local communities, in particular by helping them to initiate dialogues with decision makers and other stakeholders; and (ii) the need to implement monitoring and evaluation strategies to evaluate the impact of participatory mapping initiatives, and to measure change at the community level.

This publication focuses on participatory monitoring and evaluation, and seeks to provide guidance to IFAD staff on how to monitor and evaluate the impact of participatory mapping processes. It is a follow-up to *The IFAD adaptive approach to participatory mapping* and has been developed to complement the ‘adaptive approach’. It was prepared by Anindo Banerjee and Sowmyaa Bharadwaj (PRAXIS – Institute for Participatory Practices, India), with input and support from members¹ of the Consultative Group² of the project.

At this stage, the report is very much a working document and we encourage feedback from users.

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*‘Piloting IFAD’s Participatory Mapping Approach for Specific Livelihoods
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1. Introduction

This document is intended for IFAD staff. It was undertaken to complement *The IFAD adaptive approach to participatory mapping* (IFAD 2010) developed under the project for the Development of Decision Tools for Participatory Mapping in Specific Livelihood Systems (Pastoralists, Indigenous Peoples, Forest Dwellers) – Phase I. The ‘adaptive approach’ details the actions needed at each step of the project cycle to implement participatory mapping processes in IFAD-supported programmes and projects. The ‘adaptive approach’ is designed to be particularly relevant when mapping initiatives are undertaken with pastoralists, indigenous peoples and forest dwellers, to promote sustainable natural resource management (NRM) and support conflict resolution.

To strengthen the information contained in the ‘adaptive approach’, this report

provides guidance on how to design and implement participatory monitoring and evaluation (M&E) of participatory mapping initiatives. The document is divided into three main sections. The first section lays out the steps needed to help design and deliver participatory M&E processes. The second section focuses on the use of participatory mapping, in addition to other tools, in undertaking participatory M&E of participatory mapping approaches. The third section presents possible ways of developing results and impact indicators to ascertain the impact of participatory mapping initiatives. The guidelines are expected to help communities, project managers in the field and members of IFAD’s evaluation team to evaluate the outcomes of the processes, and monitor their impact on IFAD-supported programmes and projects.

What is participatory monitoring and evaluation (M&E)?

Participatory M&E refers to a process in which the primary stakeholders of any development intervention (e.g. communities covered by a programme or project) are actively involved in examining whether the programme or project has achieved its objectives (i.e. evaluation), or whether it is progressing in the right direction (i.e. monitoring). It is being used more and more for a number of reasons that include: an increasing trend in management circles towards 'performance-based accountability' with greater emphasis on achieving results; a growing demand for demonstrated impact/success due to limited donor funds; increasing decentralization of authority calling for new forms of oversight to improve transparency; and stronger capacities and experiences of non-governmental and community-based organizations as decision makers and implementers (Estrella et al. 2000).

The involvement of communities in participatory M&E has many distinct advantages. It can provide better insights about the dynamics of project implementation, and generate useful information about the roles of key local stakeholders and how local resources are used. In addition, it helps foster a sense of ownership among local people with regard to the outcomes. This in turn enhances the

prospects of sustainability of an initiative. Feedback obtained from communities about the strengths and limitations of a project can also help improve the design of interventions.

Why is participatory mapping important to IFAD?

A key aim of IFAD-supported programmes and projects is to assist poor rural people to build their knowledge, skills and organizations to enable them to lead their own development, and influence the decisions and policies that affect their lives (IFAD Strategic Framework 2007-2010). Participatory mapping explicitly supports this aim as it helps secure and facilitate greater access to natural resources. It also increases the ability of marginalized communities to defend their land-related rights (IFAD 2009a).

One of IFAD's ongoing priorities is to monitor and measure the results and impacts of its interventions. A participatory approach to monitoring the key results and impacts of the 'adaptive approach', can help determine the perceptions of primary stakeholders regarding the relevance of the outcomes of the participatory mapping initiatives on their lives, organizations and capabilities.

2. Participatory M&E of participatory mapping initiatives

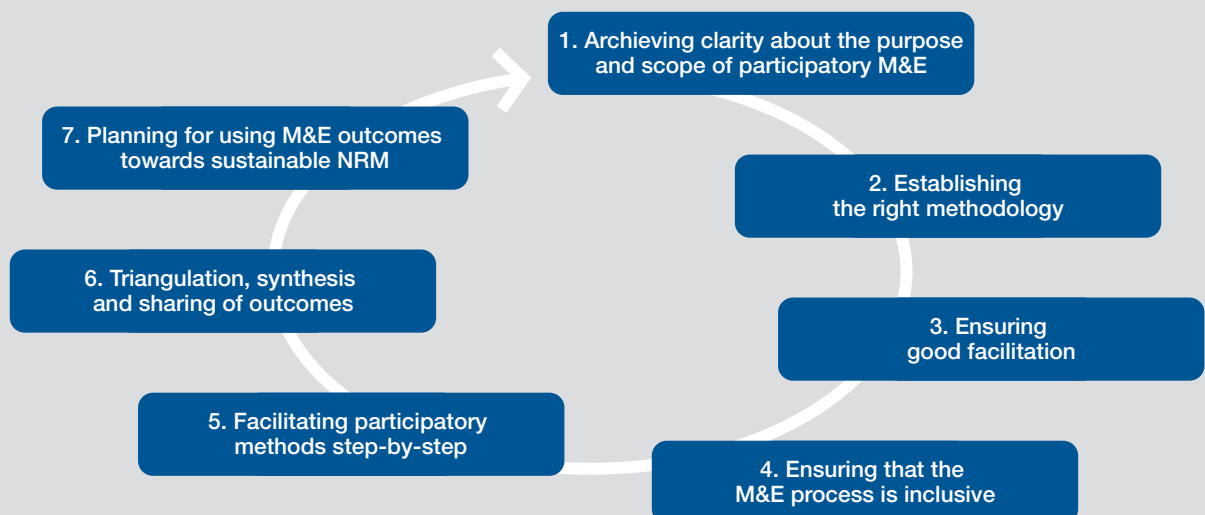
In order to comprehensively evaluate a participatory mapping initiative and monitor its impact on IFAD-supported programmes and projects, the design and execution of a participatory M&E process needs to incorporate several essential requirements, which are outlined in this section in a step-by-step manner.

The M&E officer of the project management unit (PMU) needs to play the important role of anchor in the execution of the entire chain of participatory M&E activities outlined in this section. The work of the M&E officer begins during the '**project design phase**', and particularly in the '**situation analysis**' of a project area when a

baseline map needs to be created containing information on key indicators of vulnerability and availability of natural resources.

The officer also needs to reach out to diverse sections of communities and discuss with them the need to evaluate the impacts and outcomes of a participatory mapping exercise. These discussions not only create interest within a community in the M&E process, but they also contribute to a community taking further initiatives to sustain the efforts of a project. Revisiting the expectations of different people from a project can be a good starting point for establishing the need to evaluate a project's outcomes and impacts.

Key steps in a participatory M&E exercise



Box 1

What different stakeholders might want to monitor/evaluate

Probable variables for evaluation

Related to the process of mapping

- Quality of facilitation;
- Relative involvement and initiatives of different groups within communities in the mapping process;
- Factors enabling or hindering participation.

Key outcomes of the mapping process

- Uses of the participatory mapping outputs;
- Contributions of the process to social capital (e.g. did the mapping process generate any motives for people to reassemble or undertake any collective action?);
- Change in natural resource management practices after the participatory mapping.

Probable variables for monitoring

Related to relevant local changes

- Changes in frequency of community activities and collective action;
- Relative involvement of different sections of the local community in collective initiatives following participatory mapping processes;
- Changes in practices of natural resource management and in accessibility of natural resources.

Step 1

Achieving clarity about the purpose and scope of participatory M&E

When the M&E programme is being designed (i.e. during the 'pre-mapping phase' of the 'adaptive approach'), the M&E officer should make an effort to achieve a common understanding of and clarity about the purpose and scope of a participatory process among the various key stakeholders – project officers, community members, government functionaries and organizations active in the project area. Some key considerations are:

- **Do the M&E interests of different stakeholders (particularly IFAD staff, PMU officers and local community) vary?** If yes, what are the varying and common M&E interests? Which of the various interests are relatively more important for different stakeholders? The M&E officer needs to consult various stakeholders and ensure that their interests are clearly articulated. Box 1 outlines an indicative list of probable M&E interests of various stakeholders.

- **What is the expected scale for the M&E exercise? What are the most suitable sites?** This is an important decision that the officer needs to make to ensure that the exercise is inclusive of different types of situations and voices. Sampling of sites should be undertaken to include a good mix of locations, in terms of demographic profile, nature of conflicts, types of project interventions, etc.
- **Whose opinions are to be included in the M&E process?** The officer also needs to identify key groups in a community within the selected locations whose views about the participatory mapping processes need to be ascertained. These should include women, young people and people with disabilities; and within groups of forest dwellers, indigenous peoples and pastoralists in particular.



Altanshagai, 34, reviews a pasture rotation map with a project evaluation officer, Urangya (left), in Motont Soum, Mongolia

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Step 2 Establishing the right methodology

After firming up the scope of the M&E exercise, as discussed in step 1, the M&E officer will need to establish a methodology to the participatory exercise that ensures good quality processes and outcomes, and that makes the best use of the precious time of communities and other stakeholders. **This needs to be attended to as a preparatory step to the ‘map use and decision-making phase’, unless already spelled out during the pre-mapping phase of the ‘adaptive approach’.**

For this step, it would be important to achieve clarity on the following:

- **Which groups within a community need to be involved in the M&E process?** Would it help to include any other people, e.g. representatives of local government or community-based organizations?
- **Should different kinds of people be involved in the M&E process together or separately?** This decision should be based on a judgement about the social relations across different sections of a community and the quality of facilitators available. No group should feel restricted by the presence of any other group while expressing its views.

- **What is the most appropriate location and time to conduct the M&E exercise?**

Consideration needs to be given about the daily cycles and responsibilities of different groups within the community and other important stakeholders.

- **What kinds of materials are needed and how can they be gathered?**

The M&E officer should make a checklist of essential materials in advance for use in the M&E process. These may include flash cards, sketch pens, chart paper, markers, chalk, crayons, different varieties of seeds, paper and folders.

- **How many people are required to facilitate the M&E sessions in each community?** How should roles be divided within a team of facilitators to make the optimal use of a session? It would be helpful if someone could support the facilitator by taking notes during a participatory exercise.

- **What questions need to be answered by the M&E process?** What are the most suitable participatory methods that can be used to this effect? (see box 2 for an indicative list of questions).

- **How to initiate a discussion?** How to introduce the purpose of the exercise? In what sequence should different questions be approached? What is the best way of approaching sensitive or difficult questions? It might be useful to start discussions focusing on facts or issues that are less contentious.

- **On what lines should the insights emerging from the M&E process be analysed?** Insights gained from an M&E exercise need to be analysed in terms of impact on sustainable NRM, from the perspective of different groups of local people. For example, if a participatory mapping process was believed to have helped create opportunities for people to discuss pressing issues, it would be useful to ascertain if this was true for all sections of the local community, and if such an outcome led to collective initiatives towards better NRM.

Accordingly, the M&E officer needs to make an elaborate plan for carrying out the M&E exercise, indicating questions to explore, tools to use, communities to consult, materials to be used and a time plan to follow.

Step 3 Ensuring good facilitation

For a mapping session to be truly participatory and inclusive, the quality of facilitation is crucial – and particularly when undertaking participatory M&E, which often deals with sensitive data relating to roles and tendencies of different people or institutions. Unless a facilitator is able to bring about a safe and enabling environment for stakeholders to express their judgments of people, institutions or situations without fear or restraint, it might be difficult to generate quality results from an M&E-oriented session.

It is also important for a facilitator to:

- Ensure that diverse ideas and perspectives are accommodated;
- Anchor discussions around contents of a map;
- Encourage analysis;
- Debrief key learnings from the process for all concerned; and
- Ensure that processes are undertaken in an inclusive setting – for instance, at the right time and place.

Given these responsibilities, it is very important for the M&E officer to identify process facilitators who have the right sensitivities, and invest in enhancing their facilitation capacities by giving them a proper orientation to the principles and challenges of participatory M&E. **This needs to be accomplished before entering the ‘mapping phase’ as well as during the ‘evaluation phase’**, so that a facilitator’s skills can be used in the participatory mapping process as well as in the evaluation of it. Grooming and deployment of facilitators needs to be undertaken as an essential preparatory step

Box 2

Indicative list of questions for evaluating a P-mapping process and monitoring its programme impact with regard to sustainable natural resource management and conflict resolution

Questions/ insights sought

Participatory methods that could be used

<ul style="list-style-type: none">• What changes have been perceived by the local community since participatory mapping initiatives were undertaken? What are they due to?	<ul style="list-style-type: none">• Cause-effect diagram (listing changes recalled by the community, identifying streams of causes for each and tracing manifestations of change on a <i>social map</i>).
<ul style="list-style-type: none">• Did the mapping exercise include vulnerable groups (e.g. forest dwellers, indigenous peoples, pastoralists)?• Did the mapping exercise include marginalized groups from the community (e.g. women, young people, people with disabilities)?• How suitable were the locations where mapping exercises were carried out?	<ul style="list-style-type: none">• Participatory social mapping (by first identifying different kinds of marginalized households, or households with membership in local community-based organizations on a social map. Afterwards identifying households that participated in the mapping process and the locations where it was carried out).
<ul style="list-style-type: none">• How was the mapping exercise initiated and conducted in the community?	<ul style="list-style-type: none">• Process flow diagram (by asking people to recollect the various process steps of a mapping exercise, writing them on cards and arranging them in the correct sequence).
<ul style="list-style-type: none">• How close did the actual mapping exercise come to meeting the community's expectations of an ideal process?	<ul style="list-style-type: none">• Evaluation wheel (placing the community's indicators of an 'ideal' process/PMU on the circumference of a circle. Afterwards, putting marks at proportionate distances from the centre vis-à-vis each indicator to denote the relative strengths of the actual mapping process/PMU).
<ul style="list-style-type: none">• How proactive and supportive was the PMU in enabling systemic learnings from processes like participatory mapping?	
<ul style="list-style-type: none">• What were the enabling and hindering factors for the community in participating in the mapping processes, and in taking forward the outcomes?	<ul style="list-style-type: none">• Force field analysis (placing the perceived enablers alongside the hindering factors to examine various influences that affect the participation level of the communities).

See annex 1 for a fuller description of participatory methods that can be used to answer these questions.

before embarking upon the evaluation phase of the 'adaptive approach'.

A good facilitator should have experience in handling community processes and knowledge of suitable participatory methods for use in M&E. The PMU could recruit people with facilitator-like qualities, and the M&E officer could train them adequately to handle community processes related to participatory M&E, particularly processes dealing with local power structures. One strategy to deal with this, is to choose a location and a time for the session that is convenient for marginalized groups, but that does not hold any threat of disruption from local elites. Another is to conduct the exercises in small groups to counter any erroneous perceptions by powerful sections of the community.

Step 4

Ensuring that the M&E process is inclusive

After completing the previous steps, the M&E officer should ensure that the facilitator attempts to include all groups within a community, particularly those with a high likelihood of exclusion, possibly due to gender norms, social hierarchies, physical disabilities or unusual daily cycles. This relates to the '**map use and decision-making phase**' as well as the '**evaluation phase**'. To maximize inclusion, the following should be considered:

- When selecting the time and place for the M&E exercise, the facilitator should make sure that it is convenient for all community members.
- Information on the time and place of the event should be provided well in advance, and the facilitator should make proactive efforts to involve people in the exercise, particularly those with greater likelihood of exclusion.

- The facilitator must discuss and clarify the objectives of an M&E session, and respect the suggestions of the community regarding uses of emergent data.
- The M&E officer needs to make provisions, if necessary, to conduct separate M&E sessions for disadvantaged groups, or those community members who have a different pattern of life (e.g. nomadic pastoralist groups with unusual daily cycles), to ensure their participation. The team of evaluators should include women facilitators to reach out to and include women in a session.
- Many members of marginalized communities are illiterate, and to prevent them and other illiterate groups from being excluded, locally available materials (e.g. seeds, pebbles, crayons) should be used to depict different views and interest, aided by explanations.
- The outcomes of discussions should be read aloud periodically to ensure that all participating members are following on the same page. This will give them the opportunity to further contribute to discussions or modify ideas.
- It is very important that the outputs of discussions are left in the custody of the community, in recognition of their ownership of the process. If the M&E team wishes to have copies, they must seek the consent of community members. It might be useful for the M&E officer to deploy a project staff member to record discussions during a process, along with facts and relevant examples.



Rural women in Andhra Pradesh, India, prepare for a participatory M&E session

© Praxis – Institute for Participatory Practices

Step 5 Facilitating participatory methods step by step

It might be difficult for the facilitator to conduct all M&E-related exercises, as outlined in box 2, in a single session. A series of sessions might need to be planned in each community, and participants can be requested to attend all the sessions. Ideally, not more than one or two participatory exercises should be conducted at a stretch with any group of participants. The facilitator

needs to determine the time and place for a follow-up session at the end of each session.

Annex 1 describes various participatory methods for evaluating mapping processes. These methods can be administered in the ‘map use and decision-making phase’ as well as the ‘evaluation phase’.

It will also be important for the M&E officer to prepare a documentation format to record key findings of an M&E exercise. The format should allow findings to be disaggregated to show the contrasting views of different types of people or groups. Box 3 provides an example of such a format.

Box 3

Sample format for disaggregated recording of M&E findings

M&E themes of interest	Insights from different types of community groups				
	<input type="checkbox"/> Forest dwellers <input type="checkbox"/> Agriculturists	<input type="checkbox"/> Pastoralists <input type="checkbox"/> Any Other	<input type="checkbox"/> Indigenous peoples (Tick the appropriate box)	Views of women	Views of men
Involvement of different groups within a community a participatory mapping process					
Change in accessibility of natural resources					
- - - - -					
- - - - -					

Step 6

Triangulation, synthesis and sharing of outcomes

When conducting the participatory M&E exercises, the facilitator needs to verify the data generated so that the outcomes are acceptable to diverse stakeholders. This is an important factor to keep in mind when conducting evaluations during the ‘**map use and decision-making phase**’ as well as the ‘**evaluation phase**’ of the ‘adaptive approach’.

‘Triangulation’ of the M&E data, i.e. checking the authenticity of data from diverse sources, is an important principle to be adhered to after the process is completed.

There are different ways to do this, such as:

- Comparing the results of different sessions attended by community members;

- Repeating questions in different words and forms – to examine consistency in responses; and
- By probing into the insights expressed by people to such an extent that there are no inconsistencies or gaps in information.

At the end of a participatory M&E session, after using any of the methods listed in box 2, it is important to critically synthesize the data outputs to draw significant conclusions about issues under examination. This must be undertaken together with community members to ascertain the validity of emerging inferences, as well as to ensure a shared understanding of the basis of these conclusions. As a rule, data emerging from these sessions should be synthesized and presented back to participating community members before concluding a session.

Step 7

Planning for using M&E outcomes towards sustainable natural resource management (NRM)

For a participatory M&E process to be successful, it is crucial to plan for the proper use of its outcomes. This will help to ensure community ownership of the processes and outcomes so that the community can continue its efforts towards achieving more sustainable NRM after the project has closed. Ideally, while identifying collaborators during the '**project design phase**', community groups demonstrating the potential to play an active role can be identified and linked with the M&E processes. These groups can also be determined during the '**evaluation phase**' of the 'adaptive approach', if not identified earlier.

An indicative list of key questions that can drive discussions about possible uses of M&E outcomes is presented below.

- To what extent did different groups within the community participate in the mapping processes? What were the key enabling and hindering factors?
- Which positive aspects of the collective processes need to be sustained? How?
- What actions are required to ensure that collective processes continue beyond the life of the project? What kinds of institutional arrangements are required?
- How could active groups of local people be further strengthened and linked with policy-level bodies?
- What kinds of processes would help to monitor and evaluate collective progress in future?

Annex II describes the various steps of participatory M&E with the corresponding phases in the 'adaptive approach' and outlines the critical success factors for each step.



Checklist

- ☐ Are the key stakeholders, particularly communities, clear about what is to be monitored and evaluated?
- ☐ Is there clarity in terms of which villages and groups within the communities need to be involved in the M&E process?
- ☐ Has the M&E officer prepared a plan indicating methods to be used in the process, documentation framework and a time plan?
- ☐ Have facilitators been identified for the process? Have they been trained adequately? Have people been identified for taking notes during the processes?
- ☐ Have necessary materials been organized beforehand for the M&E sessions?
- ☐ Have the communities been given the time and place of the sessions well in advance?
- ☐ Did the M&E process use participatory methods? Was it conducted at a place and time suitable to all groups within the community?
- ☐ Were the outcomes of the sessions triangulated, synthesized and shared with the participants?
- ☐ Was enough time allocated to plan for the proper use of the outcomes?
- ☐ Have any active community groups been identified to take forward the collective processes beyond the life of the IFAD project?

3. Maps as participatory tools for project M&E

In addition to other tools, participatory maps can also be used for participatory M&E of project initiatives. Box 4 captures the key strengths of maps as a participatory tool for project M&E.

Using participatory mapping to determine the results and impact of a mapping exercise, requires that the expected outcomes of it are articulated in the form of specific variables that can be traced on a map. For example, an expectation relating to, say, enhanced opportunities for inter-group interactions within a community, could be examined by checking whether households from different social groups had opportunities to participate in various social and institutional processes, or not, from the time that mapping was initiated. For this, key social and institutional processes taking place in a community after mapping would need to be identified, and the participants of each process would need to be located on the map. Box 5 presents an example of using mapping to evaluate community empowerment projects.

Significant insights can be obtained by exploring linkages across different variables. For instance, one could examine if the households identified as being active participants in a mapping process fall into the category of households with limited access to natural resources or local institutions. Such enquiries can help identify patterns of involvement of different types of households in the mapping processes and subsequent developments.

As mentioned in step 2 of the previous section, approaching a mapping session with a pre-developed checklist of relevant questions and issues to explore, can help make optimal use of the map and the time of communities. Once relevant variables are traced on a map, it should be possible to further qualify them, using different symbols to indicate different types of variables mapped. For instance, membership in a local institution can be further qualified to identify active members.

Box 4

Strengths of maps as a participatory tool for project M&E

Key advantages of using participatory mapping to monitor and evaluate project outcomes include:

- Mapping processes allow **groups of people to collectively reflect** upon M&E variables of interest on their own terms. The medium of a map makes it easier for participating groups to visualize and analyse the spatial dimension of issues of interest, and to trace changes related to the M&E variables (e.g. access to natural resources) concerning different local community groups.
- **Analysis of change in situations over time** can be easier if the manifestations of change are visually depicted on a map. This could be particularly easy if baseline maps are available with which to compare current situations. If baseline maps are not available, a map showing the current situation needs to be probed further to identify and mark changes that have taken place over different time periods.
- Mapping can allow different variables of interest to be depicted on the same map, usually with different symbols, which can help **determine patterns of association** across different variables. For instance, it can easily indicate if any particular social group has participated more in processes of collective action, or if there is a greater propensity among households belonging to nomadic tribes to be excluded from the mapping sessions.
- It can also allow a **project's investments in 'social equity' to be assessed**. By using different symbols to represent different social or occupational groups, and then by identifying households availing themselves of various opportunities that a project has created, mapping can indicate the relative levels of reach of a project vis-à-vis different groups within a community.
- Given the significance of **ownership of evaluation outcomes by key stakeholders** from the standpoint of sustainability of a project, contents of maps that communities have generated collectively tend to have a greater degree of acceptability, ownership and usefulness for future courses of collective action.



Participatory evaluation of a community empowerment project for access to land, Uttar Pradesh, India

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Box 5

Participatory mapping to evaluate community empowerment projects

In March 2008, a team composed of social and land rights local activists (Uttar Pradesh Land Alliance) was trained to conduct a participatory evaluation of two community empowerment projects in Chitrakoot and Jaunpur districts of Uttar Pradesh, India.

Village mapping was one of the participatory tools that the ‘non-expert’ team learned during the training phase. The team used the tool successfully during the participatory evaluation in the field. The graphic representation of the village enabled the participants to visualize community-based knowledge and opinions on changes in the land tenure situation in the project villages. It was one of the most powerful means for evaluating the impact of the two projects in terms of their support to vulnerable groups in gaining recognition of their land rights and accessing land. It also promoted discussion on the way forward.

As reported in the final assessment of the participatory evaluation, the village mapping was perceived by the local evaluating team and the participants as the most attractive tool among those provided for participatory evaluation.

The Land Alliance is now using the mapping tool regularly to identify land that is under control of the local elites, or common land that landless and marginalized groups have the right to claim by the state land law provisions. Participatory village mapping is the starting point of the ‘knowing your village’ exercise that the villagers are conducting in collaboration with the Alliance. It serves as an effective preparatory process for evidence-based lobbying and advocacy with local authorities, and for raising the awareness of people for long-term empowerment of marginalized groups.

4. Participatory results and impacts indicators

If a participatory mapping process is undertaken with the consent of the communities, and under their stewardship and control, it would contribute significantly to their knowledge base, capabilities and social capital. This in turn would have a positive impact on IFAD's programmes and projects. For this reason, monitoring the impact of the processes on sustainable use of NRM, conflict resolution and empowerment of local communities is crucial. The aim of this section is to provide overall guidance on how to generate participatory results and impact indicators to facilitate the monitoring of such impacts.

A good starting point for exploring the key outcomes and impact of a participatory mapping initiative in an indirect manner could be to find out *what has changed* since the exercise was carried out. The manifestations of change identified could then be subjected to a discussion on the *perceived causes* underlying each change, not all of which might be related to a mapping initiative.

Indicators of key results and impact of participatory mapping processes can be generated in a participatory manner during the '**pre-mapping phase**' of the 'adaptive approach', and incorporated in the methodology. However, if a project does not have these indicators established in the early stages, the M&E officer can have them developed during the '**map use and decision-making phase**' or the '**evaluation phase**' in consultation with key stakeholders and communities. This could be done through the following steps:

Step 1 **Enlisting community expectations of outcomes of participatory mapping initiatives**

Encouraging community members (vulnerable groups in particular) to articulate their thoughts about how they had expected the processes and interventions related to mapping

Box 6

Illustrative key results of a participatory mapping initiative

- Opportunity (for excluded or vulnerable community members) to contribute to discussions based on the mapping;
- Collective decisions about suitable courses of action in a project;
- Opportunity for community members to come together for conflict resolution;
- Community initiatives to disseminate the mapping data, and negotiate with institutions for favourable policies and practices; and
- Emergence of data related to issues of interest, disaggregated for different groups within a community – e.g. data indicating access to natural resources by different social groups.

initiatives to play out and what effects they had envisaged, will lead to the identification of broad domains of expected impact and outcomes. This will help the facilitators/M&E officer to know whether the project objectives of carrying out the mapping matched with the expectations of local communities.

The following questions can be asked:

- Why did you participate in the participatory mapping exercise?
- Did participating in the exercise help you in any way?
- Did the exercise lead to any meaningful results?
- What were the strengths and limitations of the exercise?
- What more could have been achieved from the process, if the limitations could have been addressed?

Step 2

Prompting communities to envisage how expected results could lead to various impacts

When the expected outcomes of a participatory mapping exercise are identified by community members, the facilitator should ask them to visualize how these outcomes could have an impact on the IFAD projects/programmes under which the mapping processes were conducted.

The following questions can be asked:

- How could the involvement of different groups from a community in participatory mapping processes, improve their lives? Could it help increase access to natural resources and promote their sustainable management? Could it help improve availability of food for disadvantaged groups?
- What could be the impact of people having more opportunities to come together, on their relationship with local institutions? Could it enhance their bargaining power vis-à-vis the institutions, or make the institutions more accountable?

- What other changes might be possible if people were to meet more often to discuss issues that affect their lives?

Step 3

Refining results and impact indicators

When the information from the previous steps has been gathered, the M&E officer needs to put together and analyse the expected results and possible impacts identified by different community members (different groups). They should then be standardized in the form of proper indicators, in consultation with IFAD's evaluation team. The indicators need to be expressed in simple language, avoiding complex jargon, so that community members can understand them easily and use them during the participatory M&E.

Broad indicators of key results may include the following:

- **Opportunities** created by participatory mapping processes for different groups within the local community, through their involvement in the process;
- **Decisions** made by participating groups about enhancing their access to resources or their influence over local institutional processes;
- **Analytical capabilities** acquired by participating groups to analyse situations and identify opportunities for securing their interests;
- **Associations** of people formed as a sequel to the mapping processes; and
- **Collective efforts** initiated to bring about changes in the existing situation.

Broad indicators of key impacts may include the following:

- **Changes in the collective influence** of community members over processes and situations that have a bearing on their lives;
- **Changes in self-help capacities** of various groups within a community;

- **Changes in bargaining power** of these groups;
- **Changes in the norms and practices of governance** of local institutions;
- **Changes in patterns and degrees of access** to vital opportunities and resources; and
- **Changes in the level of social cohesion** within a community.

Some of the broad impacts identified, through consultations with communities, may need to be disaggregated into *sub-indicators* to ensure focus and clarity in the information sought for evaluation. For instance, assessment of change in the level of social cohesion within a community might require the use of a number of sub-indicators – e.g. instances of intracommunity conflicts in a year, and

Box 7

Results and impact indicators related to themes of IFAD's interest

Themes	Illustrative indicators related to participatory mapping processes
Household income and assets	<ul style="list-style-type: none"> • Information or ideas generated by the mapping process for participating groups about opportunities for: <ul style="list-style-type: none"> • increasing household income through better use of natural resources • securing greater access to input and output markets • Initiatives of community members to increase household income and secure greater access to input and output markets based on insights generated by the process.
Human and social capital; empowerment	<ul style="list-style-type: none"> • Contributions of information and insights generated by mapping processes to bring about: <ul style="list-style-type: none"> • change in rural people's organizations and grass-roots institutions • change in self-help capacities of rural communities and social cohesion • change in access to relevant livelihood information • reduction in conflicts
Food security and agricultural productivity	<ul style="list-style-type: none"> • Information or ideas generated by the mapping process for the participating groups about opportunities for: <ul style="list-style-type: none"> • enhancing food security and agricultural productivity • securing greater access to input and output markets • Initiatives of participants of the mapping process based on insights gained from the process.
Natural resources and the environment	<ul style="list-style-type: none"> • Information or ideas generated by the mapping process for the participating groups about opportunities for: <ul style="list-style-type: none"> • enhancing the natural resource base • reducing environmental vulnerability • securing greater access to natural resources • Initiatives of participants of the mapping process based on insights gained from the process.
Institutions and policies	<ul style="list-style-type: none"> • Contribution of social capital generated from mapping processes to: <ul style="list-style-type: none"> • changes in service delivery for poor rural people by public institutions • changes in national/sectoral policies and regulatory frameworks concerning poor rural people • change in role, capacities and accessibility of local governance bodies and other important institutions

Box 8**Participatory methods suited to examine different types of indicators**

Types of indicators	Examples	Suitable participatory methods
Indicators seeking to understand 'prevalence' of any phenomenon/ issue, or to identify specific types of households	What percentage of forest areas is accessed by local community members? How many households in a specific community are involved in an institution?	Participatory mapping
Indicators seeking to identify 'causes' of any phenomenon, or to identify 'effects' of any intervention	What has caused a change in social relations? What are the causes for conflict between community members?	Cause-effect diagrams
Indicators seeking to disaggregate a process or understand any development in a step-by-step manner	Were marginalized groups represented in a specific community initiative?	Process flow diagram
Indicators seeking to evaluate the degree of fulfilment of objectives, or to assess the actual status of any objective vis-à-vis expectations of an 'ideal' state	To what extent was a project process participatory? Did it include representatives from all sectors of that community?	Evaluation wheel
Indicators seeking to assess perceptions or leanings of people	How much importance do people attach to conservation of forest resources?	Force field analysis

relative involvement of different groups within a community in key community-based organizations (before participatory mapping initiatives and now).

Step 4 **Reconciling external indicators**

The evaluation of participatory mapping processes may require additional, more specific indicators. In this case, the facilitator needs to translate external indicators into expressions that a community can comprehend easily.

For instance, if IFAD wants to evaluate the impact of these processes on policies governing access of rural poor people to natural resources, the impact might need to be determined through several sub-indicators, such as:

- Changes in allowances that poor rural people enjoy, or the restrictions they face in accessing natural resources;
- Changes in the community's influence on the formulation processes of policies governing their access to resources; and
- Changes in the way natural resources are managed.

Box 7 contains a list of themes of interest to IFAD and illustrative indicators of key results and impacts of participatory mapping processes vis-à-vis each theme.

Remember that indicators developed on the basis of interactions with communities need to be recorded well by project staff for use during evaluations.

Step 5 **Incorporating indicators in the methodology for the monitoring exercise**

Depending on the nature of the indicators identified through the steps discussed so far, suitable tools need to be identified for examining each indicator. Box 8 describes

different types of indicators and the participatory methods that are suitable for examining them (see annex 1 for a fuller description of participatory methods).

Step 6 **Exercising caution in attributing change to specific factors**

If a participatory mapping process is seen to have led to specific results and impacts, it might be a good idea to confirm this by asking members of the community to explain, in a step-by-step manner and with clear examples, how the mapping process brought about these results.

A better approach, as mentioned earlier, is to start with the identified results and impacts first and then work backwards to determine each stream of causes responsible for them (see annex 1). This approach can help identify all the influences that affect the results and impacts. If they are then ranked from the community's perspective, the ranking can also indicate the relative contribution of the participatory mapping processes to the results and impacts. If required, the facilitator could present an example of such a cause-effect chain, e.g. how working together could unite a community, which in turn could lead to collective actions, resulting in improved access to resources.

At the same time, determining the contribution of the mapping process in terms of the overall outcome, can be more useful than attributing changes to specific factors. One needs to be careful about attributing changes to any specific factor, given the difficulties involved in establishing causalities.

5. Conclusions

This document is the fourth and final of a series of publications that have been produced under two IFAD projects: Development of Decision Tools for Participatory Mapping in Specific Livelihood Systems; and Piloting IFAD's Participatory Mapping Approach for Specific Livelihoods (Pastoralists, Indigenous Peoples, Forest Dwellers) through Innovative Twinning Arrangements. Both projects focused on the use of participatory mapping to support the social inclusion of vulnerable communities in decision-making over NRM and conflict resolution.

By focusing on participatory M&E, this publication explains how a number of participatory methods can be used for evaluating mapping initiatives, and for assessing the impact of their outcome on IFAD-supported programmes and projects. It also describes the salient prerequisites for an

effective M&E exercise. These are: the need for a common understanding among key stakeholders of the purpose and scope of the exercise; sound methodological preparedness; good facilitation; inclusive processes; participatory synthesis of M&E data; and suitable institutional arrangements.

Because of the diversity of contexts in which IFAD-supported interventions operate, the participation of local communities will be essential for identifying suitable context-specific indicators of key results and impacts. IFAD's goal of reducing rural poverty needs to be given priority in the design of M&E processes. In this regard, the local communities must be granted the opportunity to spell out the contributions of a participatory mapping process in resolving conflicts and enhancing sustainable NRM, as well as empowering poor communities and reducing poverty.

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Using participatory methods outlined in box 2

Getting started

The facilitator needs to invite members of different groups within a community to an M&E session, ensuring that the time and location is convenient (see step 4/section 2 of the guidelines for details on maximizing inclusion). When everyone has gathered at the designated place, the facilitator should warmly welcome them, help them settle down for the meeting and explain the objectives of the meeting. She/he could first briefly talk about the participatory mapping processes undertaken in a community, and then initiate a discussion on the objectives of the M&E session. She/he should then invite community members to make suggestions about the session, and initiate the process in a step-by-step manner.

M&E Question 1

What changes have been perceived by the local community since participatory mapping initiatives were undertaken? What are they due to?

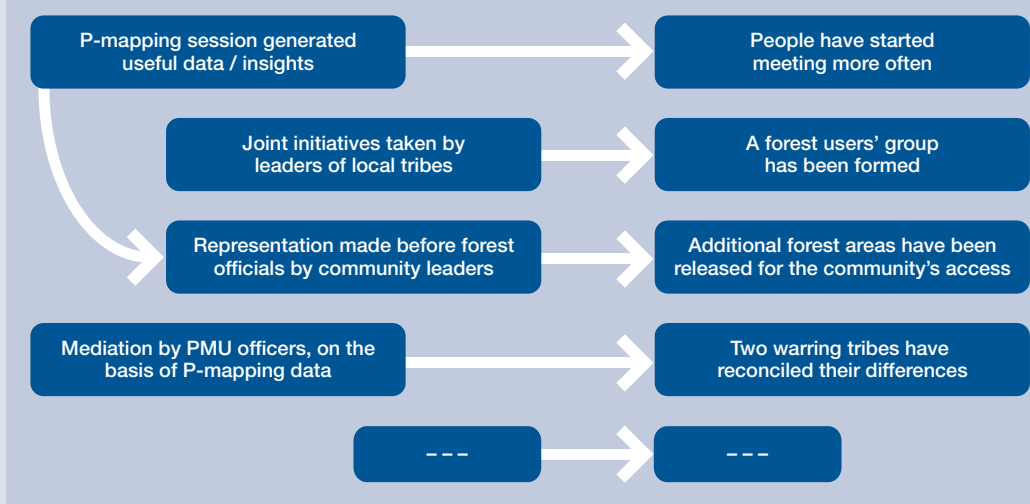
Name of Tool – Cause-effect diagram

The facilitator would ask people if they have observed any changes in the community since the mapping exercise was undertaken. The responses should be recorded on separate flash cards, by writing them or by illustrating them with suitable symbols.

Figure 1
Cause-effect diagram



Figure 2
Cause-effect diagram with responses



Once all the responses are recorded on flash cards, the participants should be asked the reasons for each change. Their responses should also be indicated on separate flash cards. Lines could be drawn on the ground with a piece of chalk, to link the perceived causes with the related changes. In a similar way, one could identify the underlying sub-causes behind each cause as well.

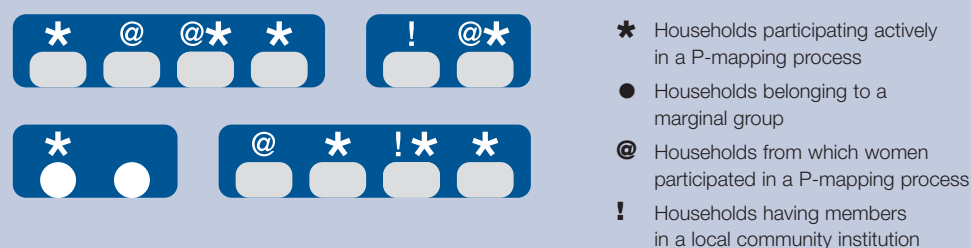
M&E Question 2

Did the mapping exercise include marginalized groups from the community (e.g. women, young people and people with disabilities)?

Name of Tool – Participatory social mapping

The facilitator can request the participants to retrieve the output of the participatory mapping exercise conducted earlier, if available, or initiate a participatory social mapping process. Once the map is drawn and all the households of the community are depicted, the facilitator can request the participants to identify those households that were involved in the mapping processes.

Figure 3
Participatory social mapping



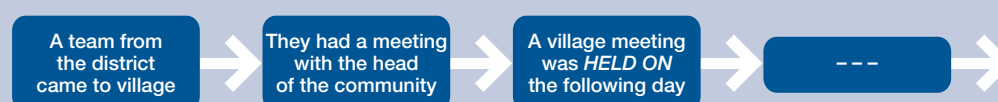
M&E Question 3

How was the mapping exercise initiated and conducted in the community?

Name of Tool – Process flow diagram

The facilitator should request the participants of the M&E session to recollect how the participatory mapping process unfolded in the village. The various stages of the process, based on the community's recall, can be depicted on separate cards and then arranged in a sequence on the ground. The emerging chain of progress of the mapping activity can then be evaluated to see whether any critical steps were missing in the process.

Figure 4
Process flow diagram



M&E Question 4

How close did the actual mapping exercise come to meeting the community's expectations of an ideal process?

Name of Tool – Evaluation wheel

The facilitator should ask people to imagine an 'ideal' process involving different groups within a community. He/she should then invite participants to describe the attributes that would make a community process like a 'participatory mapping exercise' ideal. The responses could be depicted on separate cards and arranged in a circle on the ground (see figure 5).

When the cards have been laid out and a circle drawn, the facilitator asks people to come forward to give ratings on the mapping exercise carried out in the community, based on the indicators of an ideal process envisaged by them. People volunteering to give the ratings are provided with pebbles and asked to place them, one by one, anywhere between the centre and the point on the circumference of the circle closest to the indicator. The distance of the pebble from the centre should indicate the strength of the actual mapping process related to the corresponding indicator (see figure 5).

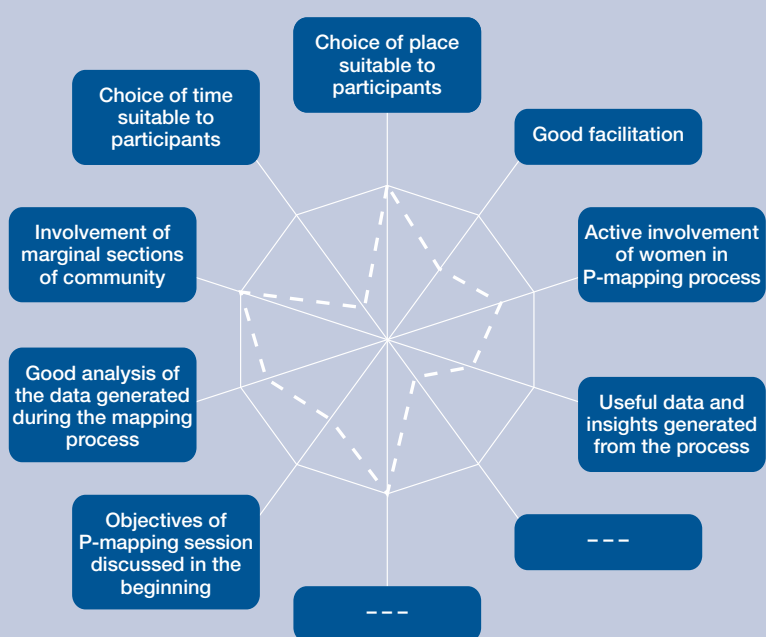
After all the ratings have been given, the facilitator should request participants to observe the emerging picture, analyse it and identify the reasons for which a low or high rating might have been given to any indicator. If a participant disagrees with the ratings, she/he could be given a different kind of pebble to assign her/his ratings, and the differences in the ratings could be examined further. The key purpose of this exercise is to understand and analyse the rationale behind the ratings in a participatory way; and not to generate the ratings per se.



Villagers evaluating a decentralization programme in West Bengal, India

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Figure 5
Evaluation wheel



M&E Question 5

How proactive and supportive was the PMU in enabling systemic learnings from processes like participatory mapping?

Name of Tool – Evaluation wheel

Can be facilitated in a similar way, as described in question 4.

M&E Question 6

What were the enabling and hindering factors for the community in participating in the mapping process, and in taking forward the outcomes?

Name of Tool – Force field analysis

The facilitator should request people to recollect the participatory mapping process carried out, and think of all the factors that might have enabled different groups from the community/village to participate. The responses should be depicted on cards and placed on the ground in a straight line. Afterwards, the facilitator should ask people to think of possible reasons that might have hindered some people from participating in the process. These responses should also be depicted on cards, preferably of a different colour, and placed in a line facing the earlier queue of cards.

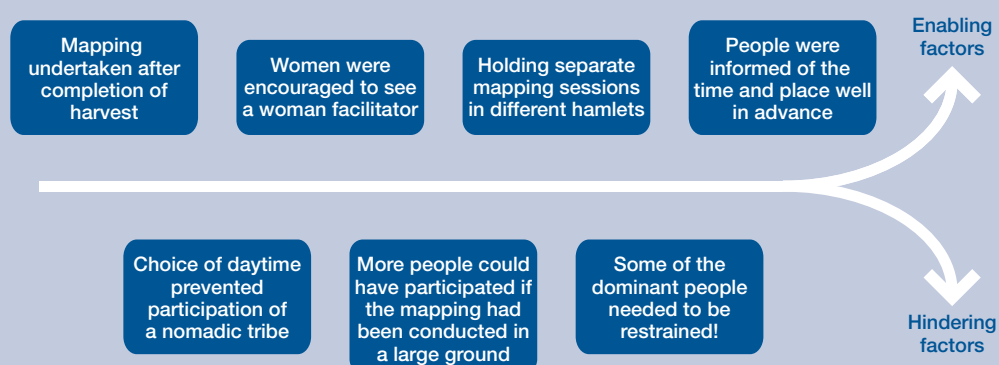
As an additional step, the factors identified (enabling as well as hindering) could be rated in terms of their relative importance, by asking community members to push the cards depicting more important factors closer to a line passing between the two sets of cards.



Rural women in Maharashtra, India, undertaking a force field analysis of the costs and benefits of participating in a government project

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Figure 6
Force field analysis



Summary of the participatory M&E process

Salient steps in participatory M&E	Corresponding phases in the 'adaptive approach'	Critical success factors
Achieving clarity about the purpose and scope of participatory M&E	During 'pre-mapping phase'	Integration of expectations of key stakeholders, including those of communities
Ensuring the right methodology preparedness	Before entering 'map use and decision-making phase'	Formulation of methodology incorporating right indicators, operations plan, documentation framework
Ensuring good facilitation	Before 'mapping phase' and during 'evaluation phase'	Identification of people with right attitudes and skills, adequate training
Ensuring that the M&E process is inclusive	During 'map use and decision-making phase' and 'evaluation phase'	Prior notice of time and place given to communities, particularly excluded groups; ensuring that the time and place is convenient
Facilitating participatory methods step by step	During 'map use and decision-making phase' and 'evaluation phase'	Good facilitation; ensuring convenient time and place; use of participatory methods and suitable materials; quality documentation
Triangulation, synthesis and sharing of outcomes	During 'map use and decision-making phase' and 'evaluation phase'	Use of participatory tools; adequate analysis; on-the-spot data synthesis and presentation back to communities
Planning for using M&E outcomes towards sustainable NRM	During 'project design phase'. Otherwise 'not evaluation phase', if not undertaken earlier!	Ownership of M&E outcomes by community groups

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