2 **WORKING PAPER**

Understanding Participation:

Monitoring and evaluating process, outputs and outcomes

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International Development Research Centre

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Working Paper 2

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1. Introduction

This paper examines the challenges and proposes an approach for monitoring and evaluating participatory research for community-based natural resource management projects[1]. The paper is intended to outline some of the key issues and constraints facing participatory research, and to provide guidance to researchers, programme and project managers interested in monitoring and evaluating participatory research projects. The focus is on using monitoring and evaluation as a tool for adaptive learning and project improvement, for integrating social theory into participatory methods, and for understanding the links between participatory processes and outcomes. The importance of using participatory monitoring and evaluation methods for bringing in the perspectives of local people whose lives are being influenced by the research is also explored.

The first part of the paper provides a background for understanding participatory research in community-based natural resource management projects. Participatory research and the various interpretations of "participation" in research - from consultative to collegiate - are described, and the complexities of applying and interpreting participatory research in community-based natural resource projects are explored. These complexities include the influence of social identity, divergent interests, local norms and institutions and power dynamics on the process and outcomes of the research.

[1] This report is based on work conducted during an internship at the International Development Research Centre (IDRC), for two natural resource programmes (Community-Based Natural Resource Management (CBNRM) programme which works in South East Asia, and MINGA : Alternative Approaches to Natural Resource Management in Latin America and the Caribbean). IDRC is a Canadian donor agency which funds development-focused research projects and research institutions in the South. The general goal of the Centre is to help strengthen local research capacity for dealing with community and regional development issues. IDRC has been a partner in support of participatory research approaches in its projects since the mid-1980s. The report relies on a combination of literature review , consultation w ith program me officers, p roject resea rchers and the IDRC evaluation un it, visits to projects in th e Philippin es as well as pa st field experien ce using qua litative research methods. T he author w ishes to acknowledge the significant contributions of Ronnie Vernooy and Stephen Tyler of IDRC; however, the views expressed in this paper are the sole responsibility of the author and do not necessarily represent the opinions of IDRC.

Sections 5 and 6 describe the rationale and present a framework for monitoring and evaluating participatory research within the context of donor institutions which have the dual objectives of supporting quality and relevant applied development research while at the same time strengthening institutional and individual research capacity. In this case, a balance must be struck between "academically ideal" research, available resources, researcher capacity and skills, and community needs. This influences evaluation criteria and expectations of participatory research projects. Section 7 describes key considerations for developing an appropriate and learning-based approach to monitoring and evaluating participatory research projects. This draws from a number of different evaluation strategies and recognises that different groups (researchers, donor agency, community members) have different monitoring and evaluation needs, as well as different perceptions of positive and negative research outcomes. Section 8 presents options for integrating monitoring and evaluation into the different stages of the project cycle (pre-project, in-project and interim or post-project).

The final sections of the paper present the issues and questions to consider in monitoring and evaluating the process and outcomes of participatory research for natural resource management. This is based on characteristics which indicate validity and quality of the participatory research process and methods, as well as the potential of the methods used to contribute to reaching the general goals of community-based natural resource management (sustainability, equity, local empowerment, poverty alleviation and so on). The ideas are geared for both the programme level and the project level, to be used by researchers during the project to help inform the research project, as well as to provide guidance for interim or post project assessments.

2. Participatory research

"Participatory research" is broadly understood, and includes a plethora of tools and methodological approaches, including such commonly used methods as Participatory Rural Appraisal (PRA), Participatory Action Research (PAR), Rapid Rural Appraisal

(RRA), and Farmer Participatory Research. Rooted in ideological and radical social movements which mobilized local people to challenge existing power regimes, participatory research has become increasingly popularised as a means of capturing local knowledge and perspectives and for involving local people in research and development activities which affect them (Selener 1997; Freedman 1997:774-775).

The term "participatory research" is loosely used to describe various types and levels of local involvement in and control of the research process. These different types of participatory research have been characterised in various ways. Biggs and Farrington (1991) differentiate farmer participatory research as contractual (farmers lending land to researchers), consultative (researchers consult farmers and diagnose their problems), collaborative (researchers and farmers are partners in the research) and collegiate (researchers encourage existing farmer experimental activities). Cornwall (1996:96) characterises different approaches to community participation as: cooption (token participation, the community has no real input or power); compliance (research agenda is decided by outsiders, the community is assigned tasks); consultation (local opinion is sought, but outsiders analyse situation and decide actions); cooperation (local people work together with researchers to determine priorities, but the process is directed by outsiders); co-learning (local people and outsiders share knowledge and work together to form action plans); and collective action (local people set their own agenda and carry it out in absence of external initiators). (Pretty 1994:41; Selener 1997;Cornwall 1996:96; Biggs and Farrington 1991:56-7). The various approaches to participatory research can be further differentiated according to the following criteria:

1. The **"goals" or rationale** for encouraging participation in research differs between projects. The rationale for choosing a participatory research approach may be **functional** or **empowering,** or a combination of these. "Functional" participatory research encourages the involvement of local people in order to improve the effectiveness of the research and enhance its usefulness for the community. An example of this is the involvement of farmers in research to develop improved farming technologies, with the purpose of increasing the

appropriateness and enhancing the adoption of these technologies. The goal of "empowering" participation is to "empower" marginalised people and communities by strengthening collective and individual capacity and decision-making power within wider society (Ashby 1996:16-17). Advocates of participatory research as a means for local empowerment argue that gaining "power" or "ownership" over the research process is a step towards gaining power in society (Selener 1997).

2. Participation of local people can occur at **different stages in the project** and for different purposes (problem identification and prioritisation, data gathering, monitoring, analysis, evaluation, etc.).

3. The **level of "control" or "ownership"** which local people have over the research process will differ between projects. The amount of local control over the process can be assessed by considering 1. Who makes decisions? (researchers or local people, and which local people or groups) 2. Who implements the activities? 3. Who analyses the information? and 4. Who is the research ultimately for? (Who will use the results of the research and how?).

4. The **sector** (agriculture, fisheries, health, etc.) may influence the appropriateness of different participatory research approaches.

5. The **"scale" of participatory activities and stakeholder involvement** will differ between projects, depending on the **scale** or size of the resource system being considered (community lands, watershed level, household farm level, etc.) and the levels of management involved. This will influence the nature of the participatory research approach in the project. Natural resource management projects often require participatory processes for "collective" decision-making and negotiation (for example, decisions about communal forests), as well as for individual decision-making (such as farmer experimentation with different cropping patterns or farming techniques). For

natural resource issues which require strategies for collective decision making, it is important to consider what "scales" of stakeholders need to be involved in order to be effective (who currently uses the resource, who has decision-making power or holds legislative authority over the resource, who needs to be consulted in order that decisions are respected, who does the research need to influence in order to have an impact, and so on). This may require involving a broad range of groups beyond the community level (NGOs, government officials, private sector companies, other communities, etc.) as well as different groups within the community (landless, women and men, different occupations, etc.). Different scales of participation will require different participatory approaches (e.g. focus groups or mapping exercises at the community level, versus multi-stakeholder round tables with representatives from different stakeholder groups) and sometimes require segregation of the different interest or stakeholder groups in participatory/ consultative processes.

6. The **level of disaggregation and representation** of different stakeholder groups (by gender, ethnicity, socio-economic class, etc.) required for the research will vary between projects, depending on how different groups will be influenced by the research and on the social and power relations between these groups. Disaggregation of the process and results may be accomplished by holding separate focus groups or mapping exercises for women and men, individual interviews as well as group exercises, analysis of household dynamics and decision-making powers, and so on. Segregation between different groups in the research process may be indicative that the researchers understand the influence of social interactions on project results.

There is not one correct approach to participatory research, nor a blueprint to follow. The appropriate scale and level of representation of different interest groups, the

"There is currently a tendency to idealise the usefulness of PRA , but under some circumstances it is more appropriate to use and recognise that we are using, more extractive methods, to avoid raising expectations or being caught up in detail, to obtain an overview of the issues, and to draw on a range of sources." (Whiteside 1997)

methods chosen, and the extent of local participation in and control over the research process will depend on the project goals and scope of the research as well as on the rationale for using a participatory approach. If “empowerment” is a goal, it is important to strengthen local institutional and individual capacities by involving local people throughout the research process; in problem identification and definition, collection and analysis of information, planning of possible solutions, and in mobilising local action for change.

One important cross-cutting indicator of “good practice” in participatory research is that the participatory component of the project is integrally linked with other aspects of the research, and that the outcomes of community participation are fed into project design to influence subsequent activities and strategy. Although this may seem obvious, in some projects, the participatory component remains detached from other parts of the project. This is particularly true for technically-oriented projects, in which it is sometimes assumed that PRA is sufficient to fulfill the social-science requirement (Goebel 1998:278). Such an assumption fails to recognise the limitations of “quick and dirty” participatory methods and the potential for these to misrepresent or simplify complex social realities. In addition, the concept of participation has been used to “get local people to do what researchers or project leaders want”, rather than as a means for involving local people in project design and strategy (Goebel 1998:279). Another concern is that participatory research becomes “tool” or “approach”-driven, with more emphasis placed on the application of different methods and approaches (PRA, PAR, multi-stakeholder analysis, etc.) than on the problems that the research is trying to address, and how these approaches can be best used to address them. Because participatory research is interpreted very broadly, for evaluation purposes it is necessary to “categorise” or “differentiate” its use in a project in order to gain a meaningful understanding of how a particular participatory approach contributes to the results of the research (Found 1997:117).

3. Participatory research for community-based natural resource management: searching for adequate stakeholder involvement

> "*...natural resource management in the age of sustainability is not characterised so much by problems for which solutions must be found, but rather by issues that need to be resolved and that will inevitably require one or more of the parties to change their views*". (Allen 1997:634)

It is increasingly recognised that interdisciplinary and participatory research approaches are essential to address the complex nature of natural resource management issues, to involve local communities in the process, and to promote sustainable and equitable natural resource management systems. Natural resource management issues present special contextual challenges for participatory research. At the community level, natural resources are governed by complex, overlapping and sometimes conflicting social entitlements and traditional norms (private versus common property rights, tree versus land tenure, differential security of tenure and use rights, etc.). Social identities, relationships and roles negotiated along lines of gender, kinship, ethnicity, socio-economic status, age, occupation, etc., both shape and are shaped by access to and use of natural resources. Local level resource entitlements are often further complicated by incompatibility with regulations and management practices at higher levels of governance. To be effective for natural resource management, participatory research approaches often require collaboration between different levels of governance and involvement of many stakeholders.

Different stakeholders - within the community and outside - have different values, perceptions and objectives concerning natural resource management issues, depending on individual context (how the individual experiences the social and natural environment) and social-cultural identity. This has implications for participatory research. Representation and meaning of "community" and "community interests" for natural resource management are "*produced in the context of struggles over*

resources, which form part of the "practical political economy" through which different parties defend interests and advance claims" (Li 1996:508). Underlying power differences between these different actors shape interaction and negotiation between them (both within the community and between the community and outside groups) and this can influence whose "interests" are represented. Although participatory processes can provide an opportunity for less powerful groups to contest existing power relations and resource rights, they equally provide a forum for more powerful or politically aware groups to further legitimatise *status quo* wealth and power relations or to assert preferential rights over resources in the name of "community interests" (Scoones and Thompson 1994:21). This is especially true for common property or open access resources, for which resource entitlements may be open to interpretation. Participatory research is essentially a political process. Power and social dynamics underlie all participatory activities, particularly group activities, and influence whose perspectives are articulated, especially when there is conflict between interests of groups of disparate power or social status.

Participatory research methods for natural resource management need to identify the range of stakeholders, illuminate their unique perspectives and involve them in problem-solving and decision-making about natural resource management issues which affect them (Allen 1997:634). This approach is rooted in non-positivist and constructivist paradigms, which 1. recognise the existence, value and legitimacy of different kinds of knowledge, particularly "popular", "local" and "indigenous" knowledge; 2. recognise that information and knowledge is not value free, and the selective choice of information or knowledge empowers some people and disempowers others; and 3. recognise that knowledge and information is constructed by context, that there is not one "explanation" or "theory" for a given body of facts, and that the choice of theory is dependent on values (Pretty 1994; Scoones and Thompson 1994:22; Guba and Lincoln 1985:26-43). Participatory methods combined with multi-stakeholder approaches can be applied to construct a common understanding among different stakeholders of disparate power and negotiate a common conceptual framework through which to address problems. A fundamental issue for monitoring and evaluating

participatory research for natural resource management is to assess whether important stakeholders have been identified and whether or not they have participated and how.

The question of "adequate" stakeholder representation depends on the nature of the research questions, who the users of the resource are and which stakeholders will be affected, as well as the nature of property entitlements for the resources being considered. It is likely that participation of different interest groups is especially important for common property issues because of the risk that certain marginal groups will be excluded from access to important livelihood resources if their interests are not adequately represented in the research. Not all stakeholders, community groups or individuals will want or need to have the same level of participation in the research, but they should at least be consulted or they may resent the research, withdraw from the process or actively undermine it. As a general rule, stakeholders who need to be represented in some capacity include: 1. individuals and groups who can influence project outcome because of the power they hold, their ability to influence opinion, the useful knowledge or skills they possess (including leaders within the community, government officials, or other groups); 2. individuals or groups who will be directly influenced by the research (including less powerful groups who may not be able to participate actively, but whose perspectives need to be considered); and 3. individuals or groups who are willing or able to play a leadership role in natural resource management, social and environmental monitoring, problem solving and conflict management.

Effective and equitable common property management requires institutions for collective decision-making and which can ensure local compliance to regulations for resource use. Institutions are "regularised patterns of behaviour" which endure over time, based on underlying rules or social norms (Leach, Mearns, and Scoones 1997:11). Institutions do not always take the shape of organisational forms, and can be formal or informal (e.g. cooperatives versus kinship or friendship networks). They include such social arrangements as marriage, economic systems, patron-client relations, labour exchange, credit or loan systems, etc. Institutions exist at multiple and

overlapping scales (household, community, state), and are often interdependent. They are dynamic and change over time as peoples' behaviour evolves according to social, political or ecological changes. It is often combinations of institutions which shape environmental change.

Resource management draws upon multiple institutions, and different people support claims to resources or environmental goods based on several different and sometimes overlapping institutions. Institutions which are not obviously or exclusively centred on natural resource use, such as kinship or marriage, also influence peoples' livelihood roles and access to resources. In cases where institutions for community-based natural resource management exist in an organizational form, relations of power and authority often underlie these. Such organisations frequently exclude the interests of subordinate or marginal groups, acting in favour of a particular representation of "community" interests. In order to represent the diversity of interests within a community, community organisations need to increase representation of marginal groups who may stand to lose from the process, as well as encourage participation of individuals or groups who have organizational skills, authority and legitimacy in the eyes of the community.

In participatory research for community-based natural resource management projects, there is often a focus on building, transforming or strengthening community organisations or institutions[2]. This requires identifying existing local institutions and organisations and analysing how these relate to natural resource management. Institutional assessment should be based on the ethical philosophy of community-based natural resource management, i.e. are existing local institutions compatible with the goals of local participation, democratic decision making, equity, poverty alleviation, and resource sustainability/conservation. If not, it may be necessary to either construct new or transform existing institutional arrangements. Support of institutions must confront issues of conflict and power, as well as uncertainty. For meeting goals of

[2] Institution building is the process of developing new institutions. Institutional strengthening describes the process of building on existing institutional arrangements and giving these new legitimacy.

equity and improving the conditions of marginal groups, it will be important to explicitly support institutions which strategically improve the access and rights of marginal groups to resources (Leach, Mearns, and Scoones 1997). Social institutions are dynamic and evolve according to changing social and natural influences, and many are interdependent, so alterations in one are likely to cause changes in others. Therefore, application of participatory research for building or strengthening institutions requires a learning process approach which encourages critical reflection linked with action.

Social and natural environments are constantly evolving. In order for local people to sustainably manage their natural resources, they must understand how their actions affect the ecosystem, and must develop skills to monitor and analyse the ecological and social results of their management decisions and be able to adapt their practices accordingly. Therefore, participatory research projects must encourage initiation of locally based participatory monitoring and evaluation processes which are accessible and relevant to local people, and which encourage local people to identify indicators of change and sustainability which can be easily measured and which have a sufficient degree of accuracy.

Monitoring and evaluating the participatory research process can strengthen researcher understanding and awareness of the social dimensions of the community and the underlying power relations and struggles over resource rights which may affect genuine participation and "manipulate" the reality which is represented. It can also assist researchers in assessing the process of institutional transformation. Information from systematic monitoring and reflection during the research can help researchers guide the process and adapt the methods to better enable articulation of marginal interests, recognise when group activities need to be disaggregated by gender or social group, and progress towards more equitable research results. This type of continual assessment of the research process is particularly important when participatory research attempts to represent the views of marginal groups and women, which may be submerged by the "interests of the community" (Li 1996:505).

4. The influence of context on participatory research

Many factors influence the outcomes of using participatory research methods to contribute to sustainable and equitable community-based natural resource management. Some of these factors are project-related (*project variables*). These include research questions, project design and management, time frames, priorities and needs of the donor and research institution, human and financial resources, participatory methods used and context in which these are applied, choice of which stakeholders to involve, the attitudes, values and abilities of the researchers, and so on. Other variables lie outside of the scope of the project (*externalities or context variables*), and form the immediate and larger setting in which the project is placed. Such contextual variables include the political context, natural environment, culture, social and economic situation, and so on. Pomeroy (1996) makes a distinction between three levels of externalities:

1. **Supra-community level:** Government legislation, international, regional and local market forces, security of land rights for indigenous groups, modes of governance, level of decentralisation of decision making, etc.;
2. **Community-level:** Intra-community power and patronage dynamics, diversity of different groups and interests in the community (ethnic, socio-economic, occupational, age) and relationships between these groups, gender relations, resource management institutions and norms, culture, local land tenure, etc.; and
3. **Individual or household level:** Social identity based on gender, ethnicity, class, economic status or age, workload and livelihood responsibilities, access to and control over productive resources, decision-making power within the household, livelihood roles, etc.

These variables can either constrain or enable local participation in research by affecting the ability or willingness of an individual or social group to genuinely and honestly contribute to the research process.

Certain contextual variables can be addressed during the research if researchers are explicitly aware of these and monitor and assess them during the research process. The resulting information can be used to adapt and improve research design and methods by building on enabling factors or by minimizing constraints and risks. The following section briefly outlines some project-related and community-level variables important for participatory research which can be monitored during the project.

4.1 Issues relating to the researchers and field workers

Participatory research is bound by values, and interaction between the researcher and the "participants" shapes the results of the research. Researchers themselves can be seen as variables which influence participatory processes and outcomes, not only by the questions they raise and methods they choose, but also by their attitudes and personalities. Evidence suggests that the type of information gained from participatory research is very much dependent on the skills and level of understanding of the facilitators (Mayoux 1995:245).

Interaction between the researcher and community is defined by underlying power differences, based on formal education versus popular knowledge, urban versus rural background, differences in social and economic status, gender roles, etc. Furthermore, in most cultures, researchers are conditioned to see themselves as experts and may view their role as "advisors" and "teachers" when working with communities. Although participatory processes provide an opportunity for reversal of researcher - community roles, devolving authority over knowledge may be a difficult adjustment for some researchers. This may be especially true in cultures with defined or rigid social hierarchies. Researcher values and understanding of community heterogeneity, social and gender relations will affect how they perceive the community, how they understand participatory activities and underlying power dynamics, and how well they interpret and attempt to represent different community interests. Researchers may intentionally or unintentionally manipulate the results and process of participatory research by

favouring certain perspectives, such as by focusing attention on more articulate individuals or organised groups. In addition, researchers' academic needs for results which will stand up to peer review and support publications may dissuade them from allowing community members to direct the research and define their own objectives. Combined, these "researcher" variables will affect the nature and outcomes of the research process, perceptions of who "owns the research", who in the community is positively or negatively influenced by the research, the sustainability of the outcomes, and so on.

Box 1: Case example of local burnout from participatory research activities.
Local people in an upland community in the Philippines have expressed dissatisfaction with participatory research activities. The community has been a popular site for participatory research activities, however local people do not perceive that they have benefited concretely from their contribution to this research. This past experience is influencing a current research project in the area which is aimed at improving local input into new ancestral land rights legislation. The project researchers are having difficulty motivating people to participate, and many people are unwilling to be interviewed. One local lamented, "Why don't they just write a book about us and get it over with?" Researchers seeking historical information are immediately directed to the elder men, who have been repeatedly been asked the same questions by different researchers. The frustration of these elders is mounting as they deal with more and more outside researchers who subsequently leave the community with the information. In addition, local people fear that information on resource use will be used as a basis for tax collection, and there is deep suspicion and resentment of the government process for "granting" certificates for land which the community already claims ownership.

4.2 Issues relating to community perception of the research

Local people's perceptions of the research process will influence their willingness to participate. Research activities may be perceived as both foreign and highly formal (Mosse 1994:505), especially when more powerful stakeholders are present. Local people may be reluctant to express their interests, may give "correct" or "expected" responses, or may present needs which they feel fit the agenda of the researchers. Their responses are often based on perceptions of what they can gain or lose by providing certain information, as well as suspicions about how the results will be used (Mosse 1994:504).

"A major lesson from Tumkur has been that to raise community expectations without prior attention to these concerns is to invite frustration and mistrust. A key element in building rapport and credibility must therefore be clear evidence that an intervening agency has a stake in the community's future and is committed to a presence beyond the demands of government or donor-driven projects. Yet even within such a commitment, a visible end to a process, with tangible outputs, often proved essential to sustaining interest and enthusiasm. The need for projects that could succeed in bringing communities together in a tangible change, such as vermiculture effort, has been strikingly underlined in Tumkur" . (Ashoke Chatterjee 1997:12)

Past community experience with research and development projects, as well as perceptions of potential benefits can influence community motivation to participate in new research activities and can bias local people's responses. The increasing popularity of participatory approaches and the accessibility of PRA tools to researchers has sometimes led to indiscriminate use of these methods. Furthermore, isolating research from action can have negative effect on local people's perception of research. Communities will be suspicious if they have been involved in many participatory processes with no obvious results ("participation overload" or local burn-out), and there is no reason to expect people will want to participate in exercises which will not offer them a practical benefit, even if the ultimate "goal" is in their strategic interests (Goyder 1998:7, Found 1997:118). The opportunity cost of participation for local people is sometimes undervalued by researchers, especially when it is assumed that participation is in the people's best interests. Participation of marginal groups and women may itself add to the work burden or decrease leisure time of these groups (Goyder et al. 1998:10; Mayoux 1995:246). The value of local participation to the research and to the local people needs to be critically assessed before assuming that a participatory approach is appropriate, and before deciding on the appropriate level of local involvement in the research.

4.3 Issues relating to research questions, design, methods and tools

Time and resource constraints imposed by the project, research institution or funding agency can limit the effectiveness of participatory research as an empowering process, and place constraints on the amount of local representation and involvement which is feasible. In addition, **methodologies for encouraging community participation** may unintentionally overlook the interests of certain groups in the community and may construct the information and priorities which are presented and the decisions which are made (Mosse 1994). Power and social relations underlie and influence all participatory processes and their outcomes. Although group participatory exercises can provide an opportunity for researchers to observe how people interact and study power

and social relations, group exercises can also obscure social complexity and legitimise dominant views as community consensus (Goebel 1998:279). Bias of results may occur because of lack of participation of certain groups or inability for them to articulate their perspectives because of the immediate context of the research activity (e.g. because of underlying social and power dynamics in group activities). Certain groups or individuals (especially women and marginal groups) may be unable (or unwilling) to participate in group activities because of livelihood and time constraints, lack of information, powerlessness, feelings that the meetings do not concern them or that their views will be of little value. Cultural, social and religious norms may define who attends meetings and makes decisions, while fear and shyness may inhibit participation in group activities. Willingness to participate will also be affected by disinterest in the research process or distrust of how the research results will be used (Mayoux 1995:246-7; Mosse 1994).

Researchers using participatory methods are sometimes relaxed about sampling, relying on the opinions of village leaders, key informants or existing local organisations to determine who should participate in the research and to identify important issues (Freedman 1997:776). Although it is usually necessary to involve such groups, it is naive to assume that they represent the interests of the whole community. Local leaders may use the process as a political platform and may advocate in their own best interests which may conflict with those of other groups.

Although participatory methods may make it easier for local people to express their interests and ideas, there is little in the methodology which helps in interpretation of this information (why people do and say what they do) (Goebel 1998:279). Research projects would often benefit from a deeper level of social analysis which may be neglected if researchers rely solely on participatory methods. Furthermore, tools which encourage local participation may create positive bias for information that can be easily gathered by these methods or which can be visually depicted (Mosse 1994:517). Information gained from participatory research may also be misrepresented in documentation and summarisation, and important minority perspectives may be lost

even when special effort has been made to ensure representation of these groups. In addition, information from participatory research may not have the specificity or perspective to meet the needs of policy makers and government officials, nor be credible to decision-makers. This can limit research influence on higher levels of decision-making.

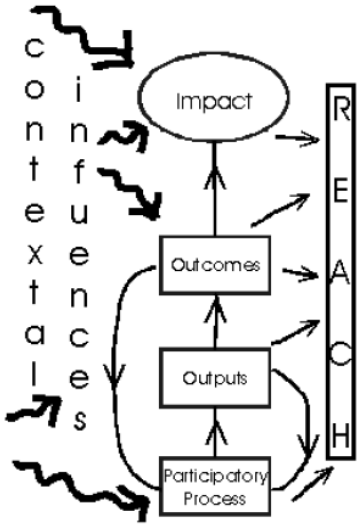
5. Rationale for monitoring and evaluating participatory research

The main clients interested in monitoring and evaluating participatory research are donors, researchers and sometimes the community. These different groups tend to have distinct information and evaluation requirements. Three main reasons for evaluating participatory research include:

1. **Project management:** To systematically learn from and adapt the research approach as the project proceeds, according to what has been successful or not-successful, and according to enabling and risk influences such as social and power dynamics which affect the research process and results;
2. **Conceptual learning:** To identify lessons of general applicability and to improve understanding of how different participatory research approaches and methods influence the outcomes of natural resource management projects. To identify what approaches work and don't work under different conditions, and what external and methodological factors influence this.
3. **Accountability:** To justify the research strategy and expenses to funding agencies through credibly illustrating the link between participatory research methods and project outcomes, so that researchers can be accountable to donor agencies, and for programme accountability to funders (government, tax payers, etc.).

Two overall goals of participatory research can be considered in monitoring and evaluation. These include 1. participation as a product, for which the act of participation

itself is an objective and an indicator of success, and 2. participation as a process to meet research objectives and goals (Cummings 1997:26; Rocheleau and Slocum 1995:18-19). For evaluation purposes, participatory research generates products of the following kinds:



1. The **participatory process, methods and tools** chosen or developed for the research. Who was involved, how, and at what stage of the project shape the ultimate outcomes and reach of the research project. Participatory research approaches developed during the project can be considered both as an objective/output of the project, as well as a functional means for meeting other project objectives.
2. **Outputs** describe the concrete and tangible consequences of participatory activities. These include information and product outputs (e.g. information from participatory baseline analysis or community monitoring, new agricultural practices or technologies developed with farmers, new community resource management approaches, etc.). Outputs also include tangibles such as number of people trained, number of farmers involved in on-farm experiments, number of reports or publications produced from the research, etc. “Participation” itself can be considered an output.
3. **Outcomes (short term impacts or effects)** describe the intermediate impacts which can be attributed, at least in part, to participatory research. Outcomes result both from meeting research objectives as well as from the research process itself. They can be negative or positive, expected or unexpected, and encompass both “functional” effects of participatory research (e.g. greater adoption and diffusion of new farming practices) or intangible “empowering” effects (e.g. improved community confidence or self-esteem, improved local ability to resolve conflict or solve problems).
4. **Impacts** describe overall changes in the community (negative or positive) and may include overall social and development goals. Desired impacts of

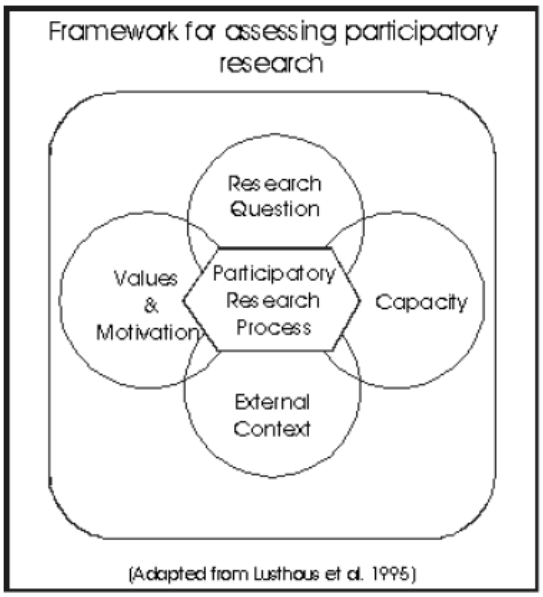
participatory research for natural resource management include sustainability of livelihoods and natural resources, empowerment of communities, decreased poverty, improved equity, and so on. Development impacts are influenced by many factors external to the project and are often observable only in the long term. Consequently, assessing the impact of a participatory research project is extremely difficult. For evaluation purposes, it is more realistic to consider outcomes as "intermediate" signs of impact.

5. **Reach:** The concept of **reach** cross-cuts all of the products of participatory research. Reach describes the scope of who is influenced by the research combined with who "responds" or acts because of this influence. Participatory research is assumed to influence reach by involving marginal groups and communities throughout the research process rather than treating them as passive "beneficiaries" of the research results. Participatory methods are anticipated to improve equity and appropriateness of results, the distribution of research costs and benefits, and the persistence of behavioural change at the community level. For the purposes of IDRC which has a mandate of strengthening research capacity in the South, an important consideration for reach is the spread of capacity and ideas at the level of researchers and research institutions.

Indicators can be defined for the different products and stages of participatory research. In practice, differentiating between process, output, outcome and reach of participatory research can be fuzzy and artificial since these are often "sequential" and "time-dependent". Therefore, it does not always make sense to differentiate between these in evaluation.

6. Framework for monitoring and evaluating participatory research

Evaluation of participatory research for natural resource management projects must be situated within parameters which influence the appropriateness and feasibility of different participatory approaches. These parameters determine realistic expectations from different participatory research projects. These parameters include the nature of the research question, the initial "capacity" of local people and researchers involved, the values and motivations for using a participatory research approach, and external contextual factors which enable or constrain participation.



Questions which can be considered when framing an evaluation include:

1. **Research Question and Goals:** Is the participatory approach appropriate for the research question?
    a. What are the ***goals and overall objectives*** of the research process? Functional, empowering or transformative, improved farm production, improved decision-making for common resources, etc.
    Is participatory research the best approach for meeting the research goals and objectives?
    Who will benefit from community participation in the research?

    b. What is the ***sector of the research***? Fisheries, forestry, farming. Does the research problem address resource decisions which require individual decision-making and compliance, or collective decision-making and compliance?

c. What are the ***dimensions*** of the research? Economic, social, ecological, political, etc.

d. What is the appropriate ***scale and scope of participation***? Local, regional, national.

   Who needs to be involved (what stakeholders) and are they included in the process?

   At what stage do these groups need to be involved?

2. **External Context:**

   a. What are the social, cultural, political, environmental, economic and institutional variables which are likely to enable or constrain different approaches and methods of participatory research?

   b. What contextual variables will affect the research? Will these restrict the type of participatory approach which is feasible? What are the risks and enabling factors?

   Community-level: power and social relations, nature of resource entitlements, cultural norms, community heterogeneity, conflicting resource use, household dynamics etc.

   Larger political and cultural context

   Research institution and donor context: project time lines, expectations for certain types research results, etc.

3. **Values and Motivation:** What are the motivating factors and underlying values for engaging in a participatory research approach?

   Of researchers and research institutions: Commitment to a participatory research approach, commitment to allowing the community to direct the process, attitudes and values regarding local knowledge and local people, focus on empowering or functional goals of participatory research, culture, etc.

Of the community and subgroups, and possibly other stakeholders: Motivation to participate in process, awareness of problems and desire to address them, culture, past experience with participatory research or other projects, expectations of benefit, values towards collective action, values of hierarchy and respect, values of equity, conservation, differing interests in negotiating access to resources or power, etc.

Of the donor institution: acceptance of fluid research processes, openness to alternative forms of accountability, time-frame flexibility, etc.

4. **Capacity:** What are the existing skills and experience of the researchers and research organisations with participatory research? What is the existing capacity of the community (institutional and individual) to deal with local natural resource problems and to work collectively?

   Of researchers and institutions: Past experience with participatory methods, training, skills and experience with community facilitation, understanding of social and gender dimensions of research, adaptability and flexibility, etc. ***Capacity of the community:*** Existing level of education and skills, level of organisation, traditional forms of natural resource management, approaches for managing conflict and making collective decisions, history of collective action, etc.

The above parameters help establish realistic expectations for participatory research processes and results. Aspects of the research process which can be considered for evaluation within this context include:

Relevance and effectiveness of participatory tools and methods: Stage at which these are used, adaptability and progress of the research process according to the context and according to various emerging realities, adaptation of methods when necessary to enable representation of different perspectives, etc.

Scope for social transformation: Community ownership of research process, learning and capacity building from the process, community involvement in identifying research priorities, in defining solutions, in action, etc.

"*Quality" of participation:* Identification and representation of important stakeholders, "scale" of participation, etc.

Trustworthiness and validity of the research findings: Are the researchers taking measures to ensure the validity of the research findings?

7. Considerations in developing an approach for evaluating participatory research

Approaches for monitoring and evaluation of participatory research must move beyond post-project assessment of whether or not research objectives have been met. In order to learn from different participatory research approaches it is important to understand how the participatory methods used contributed to the research results. This requires evaluating the research process and methods as well as the intermediate and final results - i.e. combining process and outcome approaches to evaluation. Ideally, monitoring and evaluation should be built into the research strategy from the beginning, and the information applied to improving the research process as the project proceeds.

Certain characteristics of participatory research define the appropriateness of different approaches to evaluation. These are outlined as follows:

1. **Evaluate for the unexpected as well as the predictable:** Conventional monitoring systems often only inform on results which are expected or predictable, which are related to the overall development goals of the research, or which have been pre-defined by the evaluation team. This ignores the majority of possible outcomes (Goyder et al. 1998:4). Monitoring and evaluation of participatory research must be open to recognising unexpected outcomes as well as to considering negative, unplanned indicators, and not be based only on predetermined indicators of progress.

2. **Evaluate process as well as outcomes:** Participatory research is by nature experimental, and requires that the methods and objectives initially outlined in the proposal are continually redefined and adjusted iteratively in response to contextual influences and input from participants. Therefore, evaluation based on whether or not the expected activities and results initially outlined in the proposal were achieved is not the best approach. It is more useful to consider how well the research process was adapted in order to move toward meeting

the ultimate outcome objectives, and how the research has progressed towards meeting these goals. At some point in the project clear objectives will be set, and relevant indicators for measuring progress towards these can then be determined at this time. Objectives should be stated in such a way that the results can be measured.

3. **Combine qualitative and quantitative approaches:** The most important and interesting outcomes of participatory research tend to be intangible and social in nature, and are best measured qualitatively. However, many evaluations tend to focus on outcomes which are quantitatively measurable. Although qualitative information is also important, exclusive focus on this type of information is unlikely to provide a useful analysis of participatory research projects. Qualitative analysis is important for explaining why changes have occurred, while quantitative analysis is useful in establishing relevance of changes. Quantitative and qualitative indicators can be used together to validate each other.

4. **Addressing the issue of causality:** There is an inherent assumption in research design that participatory research activities, outputs and outcomes are causally linked. However it is impossible to validate a causal relationship between these because of the number of contextual influences. A central challenge for evaluation is determining which changes in the project site were caused by factors outside of the project's control and which can be attributed to the project, as well as what the effects of the research have been on the area outside of the project site or on non-participants (the "reach" of the results).

   Attempts at establishing causality have used "quasi-experimental" evaluation designs for comparing research versus non-research situations, using a community similar to the research site as a control group (Pomeroy 1996; Olsen et al. 1997). Although imperfect, this approach may be acceptable when assessing biological or physical changes. However, it is ethically questionable

to involve a "control" community in time-consuming activities to evaluate social changes when there is no mandate to consider that community's interests. Furthermore, this approach places significant demands on human and financial resources. An alternative approach which uses "non-participants" or "non-beneficiaries" in the research site as a control group ignores the fundamental evaluation question of "why" these people did not participate, and whether or not the research had an influence on non-participants. A more feasible and appropriate approach to "quasi-experimental" evaluation is to establish credible relationships between the participatory activities, outputs and outcomes, through monitoring and evaluating the process and defining simple indicators to measure progress.

5. **Recognising different perspectives:** Different individuals or stakeholder groups (within and outside the community) will have different interests in the project, and will interpret and experience the research process and outcomes differently. These different groups will have distinct perceptions of what the project outcomes were and which were most important, and may have different criteria and indicators for positive or negative changes resulting from the project. This may depend on their level of involvement in the research process, the extent to which they have been directly affected by the project, and their individual expectations, interests and values.

> *"To assess or measure impact using one set of indicators across a particular community and without disaggregating data to refer to categories or even involving communities to explain underlying issues in some detail, is definitely to risk the possibility of painting an absolutely wrong picture"* (Goyder et al. 1998 :6).

For participatory research projects addressing natural resource management issues, it will often be necessary to understand outcome from multiple perspectives, some of which may conflict. It is therefore important to establish **whose perspectives** are needed in evaluation. This will depend on the nature of the natural resource management project and the goals of the evaluation. For example, if the goal of the evaluation is to consider improvements in

farming technologies from farmer participatory research, it may not be relevant to ask non-participants. However, if the goal of the evaluation is to understand "reach", "diffusion" and uptake of new technologies beyond the participants, obviously a wider group of people needs to be consulted. Equally, if the purpose of the evaluation is to understand social change and progress towards social and gender equity, empowerment or poverty alleviation, for representation in decision-making, in community natural resource management structures, etc., it is important to ask "who" has been empowered, "who" exactly has benefited from research aimed at poverty reduction, "who" is more involved in local decision-making, and so on, and "how" have marginal groups and women been affected or reached. In this case it will be important to identify these different interest groups and understand their perspectives on how they have participated, how they have been influenced and what the project outcomes were. It will often be useful to disaggregate this information according to social group.

The process of getting a comprehensive understanding of the outcomes of a participatory research project may call for involving various stakeholders in the community in negotiating the terms of reference and indicators for the monitoring or evaluation process. Understanding outcome from the perspective of different groups requires an open-ended, qualitative approach which does not limit evaluation to pre-defined indicators.

6. **Considering outcome at different scales:** Outputs and outcomes of participatory research can be considered for different scales of stakeholders in the research process; for researchers and research institutions (improved research capacity, better understanding of participatory processes), for community and groups within the community (more equitable decision-making processes, improved management structures for natural resource management, improved livelihoods, etc.) and for policy makers (changed attitudes and behaviours, increased openness to community involvement in

decision-making). Depending on the goals of the project and the evaluation, it may be necessary to focus how different scales of stakeholder perceived and were influenced by the project.

7. **Problems with validity of standardised indicators:** From a programme perspective, it is sometimes useful to compare the effectiveness of different participatory research approaches by comparing across projects. However, defining standardised indicators for comparison across projects is difficult since standard indicators often have little meaning in the local context or measure different changes than intended. A better approach is deciding on broader questions for which locally defined indicators and locally relevant criteria might provide information.

An appropriate approach for monitoring and evaluating participatory research would draw from a number of evaluation approaches, including:

1. **"Process evaluation"** assesses the process of reaching the final results (how something happens) rather than basing evaluation on whether defined objectives were reached (Patton 1990:94). This approach also encourages monitoring of intermediate indicators of progress, and therefore can serve to guide the research as it proceeds as well as facilitate understanding of the linkage between research process and results. Evaluating the process encourages assessing the research on criteria such as how well the researchers were able to adapt the research approach and goals to the context, whether the community participated and had a role in shaping the process and design of the research, whether there has been positive move towards desired outcomes, and so on. This moves beyond assessing the attainment of pre-defined objectives which ignores the most illuminating evaluation questions for participatory research projects.
2. **"Participatory monitoring and evaluation" or "self-evaluation"** encourages using evaluation as a learning tool and allows perspectives of different stakeholders in the community to be articulated. It also provides

information to feed into the research process, enabling researchers in partnership with the community to renegotiate and adapt goals and methods during the project according to emerging issues. This approach is discussed in greater detail in section 8.2.

3. **"Responsive and naturalistic evaluation"** encourages the collection of qualitative responses from different stakeholders, community groups and individuals who have been influenced by the project. This "constructivist" approach to evaluation recognises that "truth" and "fact" are subjective and allows different perspectives to emerge and conflicting interests to be articulated (Marsden, Oakley and Pratt 1994:31; Dugan 1996; Fetterman 1996). The boundaries of the evaluation are set by the constructions and interactions of its stakeholders (Guba and Lincoln 1989:42).
4. **Logical framework analysis (LFA)**: A simple form of Logical Framework Analysis (LFA) can provide a matrix for making explicit assumed causal relations between participatory research activities, outputs, outcomes and impact goals (Cummings 1997:588-590; Olsen et al. 1997:6). This can be used both as a project planning tool and as the basis for a preliminary evaluation plan, outlining relevant questions, indicators and methods for measuring degrees of progress, as well as designating who will undertake the monitoring activities. LFAs can be tentatively developed by researchers during preparation of the project proposal, and adapted and fine-tuned with monitoring information as the project progresses.

Although LFA matrices provide a useful framework within which evaluation and project management approaches can be developed, these require specific objectives and strategies to be defined at the beginning of the project when the least is known, and often without input from the community. This creates the risk that log frames become a "strait jacket" and an impediment to the adaptive learning which is necessary for effective participatory research (Olsen at al 1997:10). It is best that LFA is used as a planning tool to guide research design and is adjusted as the research progresses, rather than as a strict framework for which participatory research projects are accountable.

8. Monitoring and evaluation within the project cycle

Participatory research can be monitored and evaluated at different stages of the project cycle (pre-project, in-project and post-project), and different stakeholders may be involved in each stage.

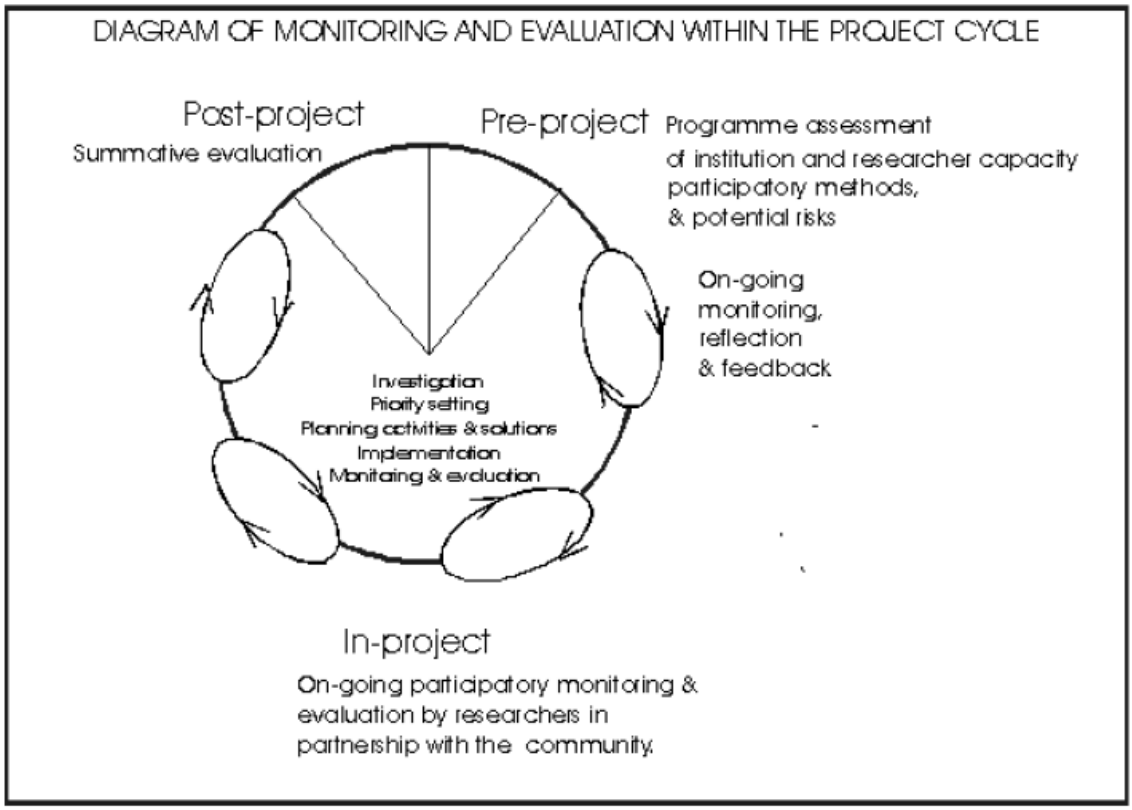
8.1 Pre-project phase (proposal development stage):

Donor agencies can assess the participatory research approach at the stage of proposal development. The appropriateness and feasibility of the proposed methodology can be roughly anticipated by examining the context (environmental, social, political, etc.), existing capacity of the researchers and research institution, and the goals of the project.

The main factors for donors to consider when assessing participatory research proposals include:

1. Capacity and motivation of researchers and research institutions: Assessment of the existing capacity and experience of the research team and institution for undertaking participatory research, as well as their motivation for using a participatory approach, is important to establish training needs and to judge the feasibility of the research strategy presented in the proposal. Questions which can be considered include:

a) What past experience have the researchers and institutions had with participatory research projects?
b) Does the research team include a qualitative social scientist (anthropologist, rural sociologist, etc.)? Does the research team include female researchers?



c) Have the researchers had training or experience with social or gender analysis, participatory research tools (PAR,PRA, semi-structured interviewing, etc.), evaluation, group facilitation, etc.? What type of training/experience?

d) Is the structure and management of the research institution accepting of participatory approaches?

e) Is the participatory research approach outlined in the proposal realistic for the research team to apply effectively, given their capacity and experience, and the support of the research institution?

2. The appropriateness and quality of the participatory research process and methods: The appropriateness and feasibility of the proposed methodology can be assessed for its relevance to the stated research objectives and the likelihood that key

stakeholders or community groups will be identified and their perspectives addressed. General methodological questions which can be considered at the project development stage include:

a) How do the researchers understand "community", "gender" and "participation" in the project proposal? Is there evidence that researchers understand the multitude of different interests and possible conflicts which may arise from the research, or is there an assumption of community cohesiveness? Is this understanding evident in the design of the methodology, or only through the use of the "appropriate" terminology?
b) What is the value of a participatory approach for the research, and is this the best approach? How will the research, and importantly the community or stakeholders benefit from participation? Is there an obvious connection and relationship between the participatory research activities with other parts of the research strategy? What types, level and scales of participation will be most effective or feasible to address the research questions, and does the research methodology support these? Is the proposed methodology "tool-driven" or flexible to focus on reaching project goals?
c) Is there an attempt to identify the stakeholders or resource user groups who are likely to be influenced by the project? Which stakeholders/community groups need to be involved, and are these included in the research process? How has this been decided? What scale(s) of stakeholders need to be involved in order for the project to have the desired outcome?
d) Is the process intended to strengthen local institutional and individual capacity and decision-making ability? If so, does the methodology encourage devolving control of the research process to the community?
e) As part of the baseline analysis, is there an intention to assess the micro-political context? To analyse local institutions? (for equity in decision-making and representativeness of different interests) To analyse social, power and gender relations in the local community? How are these relations likely to influence the research methods? Does the methodology outline

how the researchers will deal with this? (e.g. through disaggregation of methods). If there is intention to involve stakeholders of different scales (community representatives, government, etc.), how will power differences be handled?

f) Does the project strategy include a mechanism for feedback of information from participation? Is there flexibility in the methodology to adapt methods if they are not effective in allowing representation and participation of certain groups, or according to intermediate results? Is there a systematic process for communication between different researchers, local participants, etc. to share and reflect on research results and plan research direction? (E.g regular meetings).

3. The social, political and environmental context and associated risks: Although participatory research can result in significant benefits for local people and marginalised groups, there are inherent risks associated with the approach. Two types of risks can be considered:

a) risk that the research will fail to meet its goals, and
b) risk that the research, in meeting the objectives or through the research process, will unintentionally cause harm to the community or to specific groups within the community.

For example, a project designed to encourage sustainable and equitable community-based management of communal forest lands may fail to meet its objectives if key community leaders are not identified and included in the research, since the community may not recognise the research process as being legitimate or the community leaders may actively undermine the research. At the same time, these leaders may manipulate the participatory research process for their personal benefit, and marginal groups or women may lose access to important resources because they weren't able to genuinely articulate their interests during the participatory activities. Such social risks need to be carefully anticipated during proposal development and monitored throughout the project.

The potential enabling factors and social risks of participatory research or from involving or not involving specific stakeholder groups can be anticipated before the project begins, and can be ranked (high, low, likely, unlikely, on a comparative scale between 1-5, etc.) (Sawadogo and Dunlop 1997:601). Recognition and tracking of these will also help to establish what changes can be attributed to the research and what is beyond the scope of project influence. It also helps anticipate the relative importance of representation of different groups and disaggregation of research methods. The costs, skill and time required for having greater social differentiation and representation in the research process must be balanced against the livelihood risks to certain groups if they are not adequately represented.

Box 2: Unanticipated consequences
One project in India provides an example of how participation in research can have unanticipated negative consequences. The project required that women were involved in the process. One woman was elected to participate as a "chairperson" on a local committee, specifically because of her sex and low caste. Because of her new role and increased social status, people would no longer employ her for the menial tasks which had previously sustain her. Her new position was at the cost of her livelihood.(Ashoke Chatterjee 1997:16)

Questions which can be considered for pre-proposal risk assessment are outlined as follows:

1. Is there a risk that not involving certain stakeholders will provoke them to obstruct the research process?
2. Are there security and livelihood risks to local participants if they become involved in an empowering process of which the ruling group may not approve and how will the project handle this? (because of national politics and governance, community leadership, local patronage relations which place certain groups in subordinate positions, etc.)
3. Are there political or security risks to researchers or project staff if the participatory process is perceived as a threat to the political or local establishment?
4. Is there potential for the research approach to further disempower certain groups in the process of enhancing the resource rights and livelihood security

of the "community"? This consideration is especially important if the project deals with common property resources, and when there are conflicting uses, needs and interests in the resources. *"Who stands to benefit from the approach and how, and who may be further disadvantaged? Who is enabled or constrained? Whose economic circumstances or security of tenure is at stake"* (Li 1996:505).

5. What are the potential risks to the community resulting from inappropriate use of participatory research methods by inexperienced researchers? Some examples of such risk could include:
    a. Exacerbating or initiating conflict in the community by making power relations explicit or by unintentionally directing benefits of the research to specific individuals or social groups;
    b. Further marginalising certain social groups by not understanding how the research and participatory process might affect them negatively or by not recognising them as important stakeholders to include in the process;
    c. Inadvertently aiding elite members of the community in increasing their power, access and rights over resources by further legitimising their claims through "participatory" activities such as boundary and resource mapping or tree-planting which may effectively lead to land privatisation.
6. How will the research strategy deal with creating community expectations for concrete development interventions which are likely to arise from local participation in the research? When participatory research is not linked with concrete interventions, even if researchers are transparent with the limitations of their work, community groups may still anticipate practical benefits. It is important to have a mechanism within the research strategy to meet certain practical needs early on in the process.

8.2 In-project phase

During the project, "on-going" and formative monitoring and evaluation can be integrated into the research strategy as part of an iterative and reflective process. Information from systematic monitoring of the process, methods and intermediate results (outputs and outcomes) can be fed into the research to influence its direction and design. This "adaptive management" approach enables researchers to track research progress by detecting incremental signs of outcome and impact. It also enables them to assess which groups are participating and being influenced by the research, and to identify and confront undesirable results or constraining factors (Robinson et al. 1997:806, Margoluis and Salafsky 1998).

For participatory research, it is appropriate to couple an adaptive management approach with participatory monitoring and evaluation (PM&E) methods[3] in order to capture community perspectives on research results and to involve the community in directing research design. In the context of a research project, participatory monitoring and evaluation methods can be used:

1. As a research tool (e.g. farmers monitoring changes from their own experimentation and sharing the data with researchers);
2. For project management (e.g. for researchers to track the process and intermediate results and adapt research design accordingly, or for learning and organisational change); and

[3] Participatory monitoring and evaluation describes an approach for involving local people in monitoring and evaluating changes in the natural and social environment which affect them directly. Local people inform ally assess changes in their environment and monitor and analyse benefits from changing farming practices, exploring new livelihood options, and so on, as part of their daily lives. Formal participatory monitoring and evaluation processes are most often initiated by outsiders in order to capture a community perspective of the progress or impacts of a research or development project. Like other participatory research approaches, participatory monitoring and evaluation is used broadly to describe very different levels of community participation and control over the process. Participation in evaluation spans a gradient from complete community-controlled monitoring of environmental change, to researchers consulting communities on impacts of interventions, to the "participation" of field workers and researchers in evaluation (as opposed to external evaluations by funding agencies), with little focus on community involvement (Woodhill and Robins 19 98; Davis-Case 1990; Rugh 1986; Marsden, Oakley and Pratt 1994).

3. For facilitating local empowerment and strengthening community capacity to sustainably manage natural resources by helping local people develop systematic methods for tracking the results of their management decisions and activities (Guijt, Arevalo and Saladores 1998:28).

   The results of participatory monitoring and evaluation can complement external evaluations.

However, involvement of local people in monitoring and evaluation can be a time and resource consuming process. Furthermore, the process does not necessarily benefit them directly nor contribute to empowerment, and has an opportunity cost in terms of local people's time which should not be undervalued (Goyder 1998:6). The benefits and drawbacks of encouraging participatory monitoring and evaluation in a research project are outlined in Box 3.

Box 3: Potential benefits and draw backs of participatory monitoring and evaluation:

Potential Benefits:

1. Researchers and communities benefit directly from the lessons of the evaluation, unlike external evaluations from which the learning tends to be retained with the institution sponsoring the evaluation, and in which the information needs are often different from those of the project researchers and community.
2. Information from regular monitoring and evaluation is defined by the needs of the community and researchers and used to help direct the project or, if defined b y the community for it's own purposes, to track environmental and social change and help in community decision-making;
3. Researchers and the community have "ownership" over the results, and are mo re likely to internalize the lessons learned than if these were presented to them by an external evaluator;
4. Participatory monitoring and evaluation integrated into project research strategy will help strengthen the capacity of researchers and communities in evaluation, as well as in conducting participatory research; and
5. Monitoring and assessing the participatory research process should encourage researchers to be more reflective about the research strategy and methods, and hopefully more alert to how these methods enable or don't enable representation of different stakeholders, and to the social dynamics and relations of power which influence the outcome s of these processes.

Potential drawbacks:

1. PM &E can require significant time commitment both on part of the researchers and community
2. Programmes may question the objectivity of the results of participatory evaluations conducted by researchers, and may challenge their validity for accountability purposes;
3. By devolving responsibility of evaluation to researchers and the community, there is a risk that the information gathered will not meet the information needs or level of accuracy required by the programme or other users (policy makers, etc).
4. The results of participatory evaluation may not be credible or meet needs of governments and policy makers who may also be interested in the outcomes of the research; and
5. Indicators and questions from PM&E will differ between projects if they are defined in a participatory way, which may make it difficult to compare outputs and outcomes of different participatory approaches between projects.

In addition to on-going participatory monitoring and evaluation facilitated by researchers, external evaluations during the project provide important outside feedback on how the research can be improved. This may also involve participatory monitoring and evaluation methods to gain community and special group perspectives.

Participatory evaluation exercises facilitated by an external evaluator in on-going projects can combine "external" evaluation with training of researchers in evaluation tools and PM&E, and can act as an entry point for encouraging more systematic monitoring in the research.

8.3 Post-project evaluation

External, post-project evaluations are useful to establish conceptual and practical lessons from different case studies of projects which have used participatory research approaches. Postproject reflection on what methods and approaches worked well or less well in different situations provides important insights for future research design. It may sometimes be useful to evaluate a project which has already been finished for several years (3-5 years later). This can provide knowledge about the longer-term results of the research, such as the persistence of resource-use changes initiated by the project, the sustainability of new resource management institutions, (Are the environmental conditions better? Are people still applying the techniques?), or the continued use and adaptation of farming practices developed in the project. Evaluation several years after project activities have ended may be particularly beneficial for participatory natural resource management projects because of the lengthy time period for certain benefits to be observable. At the same time, it becomes increasingly difficult to attribute such outcomes to the research as time passes.

9. Monitoring and evaluating participatory processes and methods

Monitoring and evaluating participatory methods and processes during the research is important in order to:

1. **Encourage critical observation and analysis of participatory tools and methods,** including analysis of who is participating and how. This will contribute to our understanding of the relationship between participatory methods and representation of different interest groups with the ultimate outcomes and reach of the research.
2. **Encourage observation of signs of intermediate outcome and reach**, and improve understanding of the process of generating outcomes such as capacity building.
3. **Provide systematic information for improving project performance and strategy**; and
4. **Strengthen the competency of the researchers** using participatory methods by:
    a) increasing their critical understanding of the limitations and benefits of the tools and methods;
    b) nurturing explicit observation and awareness of the power and social relations which underlie participatory processes and influence whose perspectives are presented; and
    c) improving awareness of how the participatory methods and context in which they are used construct the resulting information and actions.

Monitoring the participatory process and methods during the research should decrease the chance that the research becomes tool driven and encourage critical understanding of the usefulness of the tools for meeting different research objectives. This will improve researchers' ability to choose and adapt appropriate participatory research methods, encourage participation of special groups in the community, and adapt to or

take advantage of enabling or constraining influences. It also helps make the results chain set in motion by participatory methods and activities more explicit.

The main process issues which need to be monitored and evaluated include the appropriateness of the participatory approach to the goals of the research, the "quality" of participation, how well the researchers have been able to apply and adapt the methods, the trustworthiness of the research process and results, and the effectiveness of the methods and tools for enabling participation, representation, community capacity building and ownership of the process, and for progressing towards the desired research results. Another aspect of the process which may be important to monitor is the "empowering" or "transformative" potential.

9.1 Appropriateness of the participatory approach

The appropriateness of the participatory research approach to the context and goals of the research is associated with the ethics of the approach (Who will the research benefit and how? What are the local expectations from the research and are these realistic? How are researchers dealing with the issue of raised expectations?), the motivation for local participation, and the flexibility of the approach to be adapted to the local context and respond to community input. Guiding questions to assess this in monitoring and evaluation include:

1. **Transparency of the research process:**
    a. Have the researchers clearly explained the limitations and scope of the participatory research activities to the local people?
    b. Are local people aware of these limitations or do they have unrealistic expectations?
    c. Are local people aware of and understand the overall goals of the research?
2. **Motivation for participation:**
    a. Are local people participating? In what way (consultative, active in experimentation, active in defining research priorities, etc.)?

b. Why are people motivated to participate? Is participation voluntary or compliant? Is participation based on getting people to do what the researchers want or genuinely focussed on establishing local needs and priorities?
c. Do local people perceive that they are benefiting from their participation in the research?
d. How is the research process benefiting from community participation?

3. Relevance of the methods and approaches to the local context:

a. Is the participatory methodology "tool" driven or focussed on answering research questions and meeting overall project goals?
b. Are the methods and tools effective for encouraging participation and representation? For strengthening local capacity? For enabling community-ownership of the process? For progressing towards the objectives and goals of research?
c. Are field workers making use of existing information sources such as field notes, informal observations, etc., rather than relying on participatory tools to gather information which is already documented elsewhere?

4. Adaptability of the research approach:

a. Is there a process for feedback of information from participatory processes into the research design?
b. Is there a systematic mechanism for occasional interaction between researchers and local people to reflect on the research process and intermediate results?
c. Are the "results" from community participation informing the research design?
d. Are the research goals and methods being redefined and adapted as the research proceeds?

9.2 Ability and attitudes of researchers

The abilities and attitudes of the researchers are likely to evolve and change over the course of the project because of increasing experience working with local people. It is anticipated that participatory research and working with local people will lead to increasing researchers' respect of local knowledge.

"In gender segregated groups, men's groups tended to be very argumentative, even to the point of nearly capsizing the exercise - each man wanted his own view on the chart. Women tended to be much more agreeable about a common view. Is this because women share similar views? Or is it because the rules of interaction for men and women are different? (Goebe l 1998:2 84).

1. **Attitudes of researchers:**
    a. Do the researchers respect and use local knowledge?
    b. Have the researchers' attitudes to local participation and respect for local knowledge changed since the start of the project?
    c. Do the researchers seek local views to include in the research and to inform the research process?
    d. Are the researchers seeking input from marginal groups? From women?

2. **Abilities of the researchers to adapt the process:**
    a. Are the researchers modifying the process and methods to meet research needs and in response to community input, or are they following the exact methodologies presented in participatory research tools manuals?
    b. Are researchers analysing social/gender relations underlying participatory methods, and modifying them accordingly?

9.3 Representation, stakeholder involvement and the effectiveness of participatory methods and tools

Representative and "genuine" participation of different community groups can be monitored and documented by researchers. Indicators of representation must be more revealing than quantitative information such as "how many people" or "who" attends meetings, although these are also important. Monitoring should also apply "participant

observation" to record selective and relevant qualitative information such as who speaks (does one person or group dominate discussions and what is their social status, do women participate actively in discussion), descriptions of the social dynamics of the event (especially conflicts or major arguments) and descriptions of how decisions are made, whose views are most valued or listened to, how conflicts are managed and whose interests have been served.

Whose views hold more weight? What position do they hold in the village? (Goebel 1998:284). Group participatory events provide researchers with an opportunity to observe and critically assess social and gender interactions between individuals and groups, and so provide information on the nature of social and power dynamics in the community (Goebel 1998:284).

Although the importance of segregating different interest groups in participatory research is becoming increasingly accepted, social and power relations may be based on many things - clan, wealth, age, gender, knowledge, occupation, witchcraft, etc. Researchers may not always know enough about the community to know what these different interests are, how people divide differently around different issues, and what form local power relations take. One method for establishing the basis of difference in the community without pre-defining criteria and groups is presented in Box 4. In addition, critical analysis of group exercises will help identify different power and interest groups, and provide researchers with important insight about when such groups should be segregated.

Box 4: Method for identifying different stakeholders or user groups by using a "contrast" or "maximum" variation sampling procedure:
One method for defining local groupings around a resource-use issue and to ensure that important groups are identified is to ask each individual being interviewed to identify another user who they think will have the most different perceptions about resource issues than their own. The process of interviewing and identifying new respondents with contrasting views and interests is repeated until several main themes of resource use emerge and are repeated. These themes each represent a stakeholder group. After groupings are established, members of the same stakeholder group can be brought together to discuss whether or not the researchers have accurately documented their views.

The different views collected are the basis for subsequent negotiation, decision-making, and action planning between the stakeholder groups. This approach enables researchers to identify groups with conflicting or different values without asking direct questions which may be socially unacceptable to answer. (For example, the image a community may want to portray to outsiders may be that of "homogeneity" and "agreement", which in fact may mask underlying disagreements or conflicts about resource use). (Ravnborg 1996:194)

This method for identifying different views can also be applied to evaluation, in order to obtain different perspectives on project outcomes.

Semi-structured interviews with different groups or individuals (including locals who have a stake in the research but who are NOT participating or who have stopped participating) can provide important perspectives on why people choose to participate or not participate, and whether or not they feel adequately represented in the research process. World Neighbours has used participatory ranking methods with local people to score the level of participation of different social groups in each research activity and when different research tools are used (Bandre 1998:47).

In addition to field observations of the researchers, the effectiveness of different research methods can be evaluated by local participants. Local people can provide important feedback about which tools they find understandable, with which they feel comfortable expressing their perspectives, and so on.

Box 5: Branching tree method for assessing group differentiation in the research process:
One method for assessing the extent to which researchers have identified different stakeholder groups and encouraged their participation and representation in different research activities uses a pictorial "branching tree" analogy. The "tree" is the research activity or question, the "tree branches" represent the stakeholders and groups of people who have been identified and involved, while the "sub-branches" represent subsequent divisions (ethnic groups, gender, etc.) or "sub-sets of these groups (e.g., women with land and women without land). (Goyder et al. 1998:8).

Participatory methods such as preference ranking can encourage local input on preferred tools, and can provide important insights for adapting these methods to make them more effective or for use in other areas. Such assessment can be disaggregated by social group in order to consider different perspectives (Goyder et al. 1998:18).

Guiding questions for assessing the "quality" of participation and representation include:

1. **Stakeholder identification, power and social analysis:**
    a. Have important stakeholders and community "interest" groups been identified?
    b. How were stakeholder groups identified? Were they "pre-defined" or did the groupings emerge from the research process?
    c. Has there been an effort to understand and deal with power and social dynamics and assess how these affect relationships between different stakeholders or groups?
    d. Has there been an attempt to understand the link between livelihood activity, resource use and entitlement, and the social relationships between different community groups and stakeholders, and to understand how this influences their interests in the research?
2. **Level of representation and disaggregation appropriate for the research:**
    a. Have different interest groups at least been consulted?
    b. Are those who wish to participate able to participate?
    c. Are important views being articulated (including those of marginal groups and women, where necessary)?
    d. Are the methods being disaggregated when necessary to ensure that all groups affected by the research (including less powerful people) are able to express their perspectives?
    e. When appropriate, are perspectives of different stakeholders differentiated in decision-making, in conflict management, in needs assessment and planning, etc.?
3. **Scale of participation and representation appropriate to the research:**

a. Is the "scale" of participation appropriate to the research question and the resource management issues being addressed?
b. Is there participation of relevant stakeholders (NGOs, companies, government, community, etc.) at different levels of governance when this is appropriate?
c. Are all stakeholders who use the resource represented in some way in the participatory process? (At least consulted?)
d. Is there a process for managing conflicting interests between different scales of stakeholders in such a way that negotiation os not biassed in favour of the interests of more powerful groups?

9.4 Scope of the participatory research process for social transformation, empowerment, and persistence of social change:

Participatory research is thought to catalyse social change by increasing local awareness of problems and issues, mobilising local people to develop their own options and plans for dealing with problems, and strengthening local capacity to act on these plans. The short term goal of mobilizing local people to solve immediate practical problems is intended to lead to longer term shifts in power relations in favour of less powerful groups (Selener 1997). In most natural resource management projects which use participatory methods, social transformation, in the form of improving local capacity and institutional norms for managing and using resources productively and sustainably, is an important research goal. When considering the "transformative" potential of the research it is also be important to consider how the research has contributed to shifting power dynamics within the community, as well as between the community and outside groups.

Theories of social change and local empowerment highlight certain stages and criteria which are considered essential for this process to occur. Empowerment must be clearly defined if progress towards this is to be assessed and if indicators of empowerment are to be developed. Indicators of empowerment encompass personal as well as socio-

economic and political changes, and can be established for groups or communities or at the level of the individual. Participatory research processes can be evaluated on whether or not they meet the criteria thought to be important for encouraging social change and contributing to local empowerment. These criteria include:

1. **Strengthening local awareness of issues and options.**
    a. Has the research process increased local awareness of issues?
    b. Have the research process and methods mobilised or facilitated local people to develop local options for improving their situation?
    c. Are local people better able to make informed decisions about natural resource management?
2. **Participation of local people in decision-making, planning and "action" to address problems.**
    a. Is the participatory process facilitating local involvement in decision-making and action to address problems?
    b. Is there an improvement in their ability to make collective decisions and to "equitably" resolve conflicts between different groups in the community?
    c. Do local people have increased ability to act collectively in community interests?
    d. Do they have increased understanding of the different needs in the community?
3. **Perceptions of "ownership" of the process.**
    a. What is the local perception of who the research is for and of the purpose of the research?
    b. Who controls the research questions and agenda? To what extent are the issues and questions defined by the researchers? By the community?
    c. Are local people involved in identifying and defining research priorities and plans? In data collection and analysis? In defining solutions and action plans? In monitoring the results of their activities or experiments and in defining their own indicators and criteria for success?

4. **Strengthening existing individual and organisational capacities:**
    a. Has the research identified and made explicit existing individual and community-level capacities? (existing resource management institutions, decision-making and negotiation processes, conflict management skills, etc.)
    b. Is the research process strengthening these individual or group capacities and organizational skills?
    c. Is the research process contributing to individual and community awareness of local problems and strengthening their ability to deal with them effectively?
    d. Is the research process strengthening community capacity and motivation to continue activities such as resource management, or is community motivation dependent on mobilisation by the researchers?
5. **Creating linkages between stakeholder groups:**
    a. Have the researchers identified existing linkages (e.g. between local government and community), and areas where linkages need to be made in order to effectively address the research problem?
    b. If appropriate to the research question, have the researchers been able to encourage participation of stakeholders at different levels of governance and created linkages between these stakeholders?
    c. Have forums or networks been established for negotiation or information sharing between these different groups, or between groups of similar interests (e.g. farmers)?
6. **Empowerment and social transformation:**
    a. Have local people been changed by the process?
    b. Do local people have an increased awareness of their own situations?
    c. Do local people have an increased awareness and appreciation of the realities and interests of other groups or stakeholders?
    d. To what extent did the investigation prompt action?

9.5 Trustworthiness and validity of research findings

Participatory research has been criticised for lack of rigour and accuracy, for being subjective and for bias in favour of specific local groups or individuals (Pretty 1995:178). Researchers are sometimes called upon to justify the approach and establish credibility of the results. Can we be confident about the "truth" of the findings? Can we apply these findings to other contexts or other groups of people? Are the findings reliable (would the results be the same if the research was repeated?) How can we be certain that the biases, motivations and perspectives of the investigators did not construct the results? (Pretty 1995:178). Reliability of the research is implied if certain measures were included in the research process, and this can be considered when evaluating participatory research. Indicators of reliability include:

1. Lengthy or intense contact between the researchers and local people, in order to build trust and better understand the research context and local social dynamics and institutions.
2. Triangulation of process and results by using different methods for the same data, or by having different researchers involved in collecting the same information.
3. Cross-checking the results of participatory research with local participants in order to ensure validity, and involvement of local people in analysis of results to ensure that the views represented are really those of the local people.
4. Peer or external review of results and research process.
5. Reports which include contextual descriptions and quotations from local people, in order to capture the complex social reality and include multiple local perspectives and experiences.
6. Documentation of the research process, and keeping of daily diaries reflecting on the research process.

10. Monitoring and evaluating outputs, outcomes and reach

Many outcomes of participatory research for natural resource management are diffuse and long-term, and notoriously difficult to measure and to attribute to a particular research project or activity. However, there are certain outputs and outcomes which commonly evolve from such projects. A non-exhaustive list is outlined as follows. In order to consider the contribution of the participatory approach to these outcomes, it is most interesting to consider their "intangible qualities" in addition to their existence (for example, for community organisations developed as an output, to consider qualitative features such as how representative they are, how are decisions made, etc.). Evaluation of the "nature" of these outcomes rather than their "existence" alone requires a qualitative approach such as semi-structured interviews on key issues with various groups in the community. Furthermore, because different individuals and community groups will have different perceptions of what the outcomes of the research were and which were important, it will often be important to obtain multiple perspectives.

Box 6: Method for disaggregating impact and output:
PRA methods such as social mapping and well-being ranking exercises ca n be used to identify stakeholders and understand differences in well-being as p art of baseline analysis. Ranking of well-being can help identify the marginal groups in the community and establish local criteria for what makes them vulnerable. Disaggregated baseline analysis or semi-structured interviews targeted at different social groups at intervals during the project can help determine differentiated impact as the project proceeds.

Possible Tangible Outcomes:

1. **Baseline information on community situation should include:**
    a. **Livelihood analysis:** investigation of community differentiation, how these different groups interact with the environment through livelihood roles or access to resources, and capabilities of different groups.
    b. **Ecosystem analysis:** assessment of the dynamics of ecosystem transformation, microenvironments and how human action is contributing to environmental change,

c. **Institutional analysis:** assessment of formal and informal behaviours and institutions which govern human interaction with the ecosystem and with each other.

Questions which may illustrate qualities of these outputs which will reflect on the participatory process include:

a. Whose knowledge and perspectives have been documented?
b. What was the research context in which the knowledge was generated? (Were groups disaggregated when there were conflicting interests or power differences? Was this information collected from a variety of stakeholders or community groups?)

2. **Community identification, prioritisation and analysis of problems, and plans for how to address these.**
   - **a.** Who in the community was involved?
   - **b.** What was the research context in which the knowledge was generated?
   - **c.** How were issues prioritised and plans made - whose perspectives do they represent and how was this negotiated?
   - **d.** How were conflicting interests managed?
3. **New technologies or production systems developed in partnership with local people and researchers (agro-forestry, soil-conservation, farming systems, etc.)**
   - **a.** Are these based on priorities identified by local people and were local people involved in the development or experimentation process?
   - **b.** Have local people adapted the experimental approach in other aspects of their livelihood (evidence of improved capacity)?
   - **c.** Has the innovation been taken up by other people who did not participate in the study (evidence of reach)?
   - **d.** Have people been teaching each other?
4. **Community-level institutions or organisations adapted or created:**

a. Were existing local institutions and organisations identified and assessed for whose interests they represent? For compatibility with sustainable resource use? For democracy in decision-making?

b. Did the researchers build upon institutions which strengthen the strategic interests of subordinate people?

c. Who is actively involved in the relevant organisations and how did these people participate in the research?

d. Is there an active leadership? Whose interests are represented by the organisation or leaders? Are the interests of less powerful groups represented? (through active involvement or through spokes-people acting on their behalf).

e. Are the organisations and leaders accountable to the community? Do they represent important stakeholders? Are they legitimate in the eyes of the community? What is the motivation for involvement?

f. How are conflicts resolved? How are decisions made?

5. **Community-based management systems:**

a. Are local people able to systematically monitor the ecological results of their activities and adapt activities which are not sustainable?

b. Are they able to enforce sustainable practices? Do they have the authority to ensure compliance? Is there equity in representation?

c. Is there an effective or improved forum or mechanism for conflict resolution concerning use of common resources?

d. Are methods for decision-making improved or more representative of various interests?

e. Are less-powerful voices included in decisions?

f. Is there strength in the leadership?

g. Is there a system of accountability, and to whom is the system accountable?

Possible Transformative Outcomes:

1. **Capacity building at the community level:**

a. Is there increased awareness of issues and problems?

b. Are local people better able to make informed decisions about natural resource management?
c. Are they able to formally monitor environmental and social change (Have they been trained in participatory monitoring and evaluation methods?)
d. Is there an improvement in their ability to make collective decisions and to "equitably" resolve conflicts between different groups in the community?
e. Do they have an increased understanding of different needs in the community?
f. Do they have the institutional and individual capacity to effectively adapt their management processes for farm or common resources according to changing external and internal pressures?
g. Have their organisations been strengthened?
h. Is there an increased ability of local people to act collectively in community interests and to access external support for community needs?

Outcomes at Scale of Researchers and Research Institutions:

1. **Capacity building at the researcher level:**
   a. Are researchers more conscious of social relations and how this affects the research?
   b. Are they better able to adapt participatory tools and approaches to fit the context and the information needs of the research and the people?
   c. Are they better able to facilitate participatory processes to enable different perspectives to be articulated?

11. Conclusion

The many contextual variables which influence participatory research processes make monitoring and evaluating participatory research multi-dimensional and complex. The diversity of natural resource management research projects which apply participatory research methods, as well as the differences in understanding of what "participation" in research implies makes it difficult to compare successes and failures between projects or to generalise about successful participatory research approaches. Furthermore, because the different groups involved in participatory research projects have different indicators and criteria for project success, it is important to understand whose perspectives are needed in order to inform on specific issues or outcomes, and to seek these views in evaluation.

Evaluation approaches for participatory research need to assess the research process as well as project outcomes They must be flexible to encourage awareness of unanticipated changes and understanding of different perspectives of results, should be locally relevant, and must consider negative, unplanned indicators. A useful way to monitor and evaluate participatory research is to integrate this into the project cycle from the project design stage. Ideally, such an approach will benefit both donors, the community and researchers by improving overall research outcomes and generating greater understanding of the applicability and benefits of different participatory approaches in different contexts. Because participatory research approaches cannot be standardized between projects and need to be adaptable and responsive to the local context, evaluation of the research process is essential for evaluating participatory research. Furthermore, this approach will systematise researcher learning from monitoring the methods and intermediate outcomes, helping them to improve research strategy, ensure representation of important stakeholders, incorporate community perspectives into the research and improve progress towards desired research goals.

References

Allen, William J. (1997) 'Toward improving the role of evaluation in natural resource management R&D programs: the case for learning by doing', *Canadian Journal of Development Studies* XVIII: 629-643.

Ashby, Jacqueline A. (1996) 'What do we mean by participatory research in agriculture', in *New frontiers in participatory research and gender analysis: Proceedings of the International Seminar on Participatory Research and Gender Analysis for Technology Development September 9-14, 1996*. pp.15-22. Cali, Columbia: International Centre for Tropical Agriculture (CIAT).

Bandre, Paul (1998) 'Participatory self-evaluation of World Neighbors, Burkino Faso', *PLA Notes* 31:44-49

Bay of Bengal Programme for Fisheries Development (BOBP) (1990) *Helping fisherfolk help themselves*. New Delhi: Affiliated East-West Press Pvt. Ltd.

Biggs, Stephen; Farrington, John (1991) *Agricultural research and the poor: a review of social science analysis*. Ottawa: International Development Research Centre.

Claridge, Gordon (1997) *Community-based conservation management at Danau Sentarum Wildlife Reserve (West Kalimantan, Indonesia): Lessons learned from the Indonesia-UK Tropical Forest Management Programme Conservation Project and guidelines for the future*. Evaluation Report. Benalla, Australia: Natural Environment Consulting Pty Ltd.

Cummings, F. Harry (1997) 'Role of participation in the evaluation and implementation of development projects', *Knowledge and Policy: The International Journal of Knowledge Transfer and Utilization* 10(1/2): 24-33.

Cummings, F. Harry (1997) 'Logic models, logical frameworks and results-based management: contrasts and comparisons', *Canadian Journal of Development Studies* XVIII:587-596.

Davis-Case, D'Arcy (1989) *Community forestry: participatory assessment, monitoring and evaluation*. Rome: Food and Agriculture Organisation.

Davis-Case, D'Arcy (1990) *The community's toolbox: the idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry*. Rome: Food and Agriculture Organisation.

Dugan, Margret A. (1996) 'Participatory and empowerment evaluation: lessons learned in training and technical assistance', in David M. Fetterman, Shakeh J. Kaftarian and Abraham Wandersman (eds) *Empowerment evaluation: knowledge and tools for self-assessment and accountability*. pp. 277-303. London, UK: Sage Publications.

Environmental Entitlements Research Team (1997) 'Methods for environmental entitlement analysis', *IDS Bulletin* 28(4): 15-22.

Fetterman, David M. (1996) 'Empowerment evaluation: an introduction to theory and practice', in David M. Fetterman, Shakeh J. Kaftarian and Abraham Wandersman (eds) *Empowerment evaluation: knowledge and tools for self-assessment and accountability*. pp. 3-46. London, UK: Sage Publications

Found, William C. (1997) 'Evaluating participatory research supported by the International Development Research centre', *Knowledge and Policy: The International Journal of Knowledge Transfer and Utilization* 10(1/2):109-122

Freedman, Jim (1997) 'Accountability in the participatory mode', *Canadian Journal of Development Studies* XVIII:767-784.

Goebel, Allison (1998) 'Process, perception and power: notes from 'participatory' research in a Zimbabwean resettlement area', *Development and Change* 29(2):277-305

Goyder, Hugh; Davies, Rick; Williamson, Winkie (1998) *Participatory impact assessment: a report on a DFID funded ActionAid research project on methods and indicators for measuring the impact of poverty reduction*. Somerset, UK: ActionAid.

Guba, Egon G.; Lincoln, Yvonna S. (1989) *Fourth generation evaluation*. Newbury Park, California: Sage Publications

Guijt, Irene; Arevalo, Mae; Saladores, Kiko (1998) 'Tracking change together', *PLA Notes* 31:28-36.

Leach, Melissa; Mearns, Robin; Scoones, Ian (1997) 'Challenges to community-based sustainable development: dynamics, entitlements, institutions', *IDS Bulletin* 28(4): 4-14.

Leach, Melissa; Mearns, Robin; Scoones, Ian (1997) 'Institutions, consensus and conflict: implications for policy and practice', *IDS Bulletin* 28(4): 90-95.

Li, Tania Murray (1996) 'Images of community: discourse and strategy in property relations', *Development and Change* 27: 501-527.

Lincoln, Yvonna S.; Guba, Egon G. (1985) *Naturalistic inquiry*. London: Sage Publications.

Lusthaus, Charles; Anderson, Gary; Murphy, Elaine (1995) *Institutional assessment: a framework for strengthening organisational capacity for IDRC's research partners*. Ottawa, Ontario: International Development Research Centre.

Margoluis, Richard; Sagafsky, Nick (1998) *Measure of success: designing, managing, and monitoring conservation and development projects.* Washington, D.C.: Island Press.

Marsden, David; Oakley, Peter; Pratt, Brian (1994) *Measuring the process: guidelines for evaluating social development*. Oxford, UK: INTRAC

Mayoux, Linda (1995) 'Beyond naivety: women, gender inequality and participatory development', *Development and Change* 26:235-258.

Mosse, David (1994) 'Authority, gender and knowledge: theoretical reflections on the practice of Participatory Rural Appraisal', *Development and Change* 25:497-526.

Olsen, Stephen; Lowry, Kem; Tobey, James; Burbridge, Peter; Humphrey, Sarah (1997) *Survey of current purposes and methods for evaluating coastal management projects and programs*

funded by international donors. Coastal Management Report #2200. Rhode Island: Coastal Resources Centre, University of Rhode Island.

Patton, Michael Quinn (1990) *Qualitative evaluation and research methods*. Newbury Park, California: Sage Publications.

Pomeroy, Robert S.; Pollnac, Richard B.; Predo, Canesio D.; Katon, Brenda M. (1996) *Impact evaluation of community-based coastal resource management projects in the Philippines*. Makati Citi, Philippines: ICLARM

Pretty, Jules N. (1994) 'Alternative systems of inquiry for a sustainable agriculture', *IDS Bulletin* 25(2): 37-48.

Robinson, Sheila A.; Cox, Philip; Somlai, Ivan G.; Prasai, Bhisma Raj (1997) 'Process evaluation: a field method for tracking those elusive development results', *Canadian Journal of Development Studies* XVIII: 805-834.

Rocheleau, Dianne; Slocum, Rachel (1995) 'Participation in context', in Rachel Slocum, Lori Wichhart, Dianne Rocheleau and Barbara Thomas-Slayter (eds) *Power, process and participation: tools for change*, pp.17-30. London: Intermediate Technology Publications, Ltd.

Rugh, Jim (1986) *Self-evaluation: ideas for participatory evaluation of rural community development projects*. Oklahoma: World Neighbours, Inc.

Sawadogo, Jean-Baptiste; Dunlop, Kathryn (1997) 'Managing for results with a dynamic logical framework approach: from project design to impact measurement', *Canadian Journal of Development Studies* XVIII: 597-612.

Scoones, Ian; Thompson, John (1994) 'Knowledge, power and agriculture - towards a theoretical understanding', in Ian Scoones and John Thompson (eds) *Beyond Farmer First: Rural people's knowledge, agricultural research and extension practice*, pp.16-32. London, UK: Intermediate Technology Publications, Ltd.

Selener, Daniel (1997) *Participatory Action Research and Social Change*. New York: Cornell Participatory Action Research Network, Cornell University.

Stecher, Brian M.; Davis, Alan W. (1987) *How to focus an evaluation*. London: Sage Publications.

Tschumi, Peter (1991) 'Monitoring and evaluating a project's effectiveness', *Waterlines: Appropriate technologies for water supply and sanitation* 10(1):25-28.

Woodhill, Jim; Robins, Lisa (1998) *Participatory evaluation for landcare and catchment groups: a guide for facilitators*. Yarralumla, Australia: Greening Australia Ltd.

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1. Rusnak, G. 1997. *Co-Management of Natural Resources in Canada: A Review of Concepts and Case Studies*.
2. McAllister, K. 1999. *Understanding Participation: Monitoring and evaluating process, outputs and outcomes.*
3. McAllister, K. and Vernooy, R. 1999. *Action and reflection: A guide for monitoring and evaluating participatory research*.
4. Harrison, K. 2000. *Community Biodiversity Registers as a Mechanism the Protection of Indigenous and Local Knowledge*.
5. Poats, S. 2000. *Gender and natural resource management with reference to IDRC's Minga program*.
6. Lindayati, R. 2000. *Community Forestry Policies in Selected Southeast Asian Countries*.
7. Meltzer, J. 2001. *Assessment of the Political, Economic, and Institutional Contexts for Participatory Rural Development in Post-Mitch Honduras*.
8. Brooks, D.B., Wolfe, S. and Shames, T. 2001. *Local Water Supply and Management: A Compendium of 30 Years of IDRC-Funded Research*.
9. Lee, M.D.P. 2002. *Community-Based Natural Resource Management: A Bird's Eye View*.
10. Sick, D. 2002. *Managing Environmental Processes Across Boundaries: A Review of the Literature on Institutions and Resource Management*.
11. Mujica, M. 2002. *Assessing the Contribution of Small Grants Programs to Natural Resource Management.*
12. Frias, G. 2003. *Invasión Forestal: Khla Nagnegei Taíñ weichangepan.*
13. Ghose, J.R. 2003. *The Right To Save Seed*.
14. Wiens, P. 2003. *The Gendered Nature of Local Institutional Arrangements for Natural Resource Management: A Critical Knowledge Gap for Promoting Equitable and Sustainable NRM in Latin America*.
15. Goetze, T.C. 2004. *Sharing the Canadian Experience with Co-Management: Ideas, Examples and Lessons for Communities in Developing Areas*.
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