

## INTRODUCTION

# 1

Commonsense says that monitoring systems should be able to provide feedback that can help correct ineffective actions. But practice shows that when dealing with complex rural development issues that involve collaborative action by a changing configuration of stakeholders, monitoring practice often falls short of its potential. This chapter sets out the core problem that this thesis seeks to examine – how to understand and design monitoring processes that foster learning in concerted action that seeks more equitable and sustainable forms of development.

The chapter is divided into five sections. First, I introduce the central concern of the thesis via a metaphor that emerged during fieldwork in Brazil (see Chapters 2, 5, 6 and 8). The second section outlines several concepts, notably institutional transformation, ‘messy partnerships’ and collective learning, around which the quest for improved monitoring in the thesis focuses. Subsequently, I outline the growing relevance of the topic. Section four presents the core questions and structure of the thesis. I close this chapter with a brief look at the conclusions (see Chapter 9).

### 1.1 The ‘Tiririca’ of Constructing Collective Learning from Monitoring

‘Tiririca’ (*Cyperus rotundus* or purple nutsedge) is a weed that grows profusely in the fields of smallholders in Minas Gerais, Brazil. Farmers have various ways of combating the weed, one of which is a stopgap measure of cutting it back. However, once cut, the weed sprouts back even more ferociously than before, teasing the farmer with yet more shoots. The more it is tackled in this way, the more problematic it becomes until a structural solution is found.

The existence of ‘tiririca’ – and the power of its metaphor for describing the construction of collective learning – came to my attention in 1996. I had been working with small-scale farmers, trade unionists and NGO staff in two sites in Brazil who seek to create a societal alternative based on agroecological principles in which small-scale farmers are able to realise their aspirations and satisfy their needs. Their collaboration involves work on technical challenges, social relations and public debates in relation to agriculture, natural resource management, municipal governance, and policy formulation. For this context, we were developing a participatory monitoring system that

could guide strategic thinking and enhance results. To round off the first design workshop in the municipality of Araponga (Minas Gerais), we were evaluating progress and had invited reflections from participants. After some general murmurings of 'interesting' and 'difficult', Pedro Raimundo dos Santos, a local smallholder, stood up and remarked wryly: '*É pior que tiririca! Quando resolvimos uma coisa, outras aparecem.*' 'It's worse than 'tiririca'. Every time we resolve one issue, several more appear' (CTA-ZM and IIED 1996). The first steps in developing the monitoring system together had raised more questions for us all than answers.

This metaphor persisted and became a good description of the process in subsequent years that initially seemed to be straightforward and well-thought out. Yet our process was marked by unexpected twists and questions at each step, forcing us to identify what underlying issues we had overlooked. Let me give two examples.

At the onset of work in Araponga, we all assumed that after years of partnership between the NGO and farmers' unions, there would be clarity of objectives and vision. Surprisingly, when the partners were asked to articulate the objectives to be monitored, it became clear that there was no articulated coherent joint strategy driving the partnership. Instead, participants listed 28 loose activities, more or less clustered under six themes. Of these, only a handful was being implemented actively, and of those being implemented, everyone had different expectations. Apparently eight years of collaboration was insufficient to develop a common understanding, so we spent the first six months of our monitoring process clarifying expectations and agreeing on key objectives to monitor (see Chapters 5 and 6). We had not expected that visioning would be needed as the first step of monitoring. Furthermore, each partner realised the need to delineate its own domain of action more clearly, which had implications for how we understood the limits of participation and collectiveness in joint monitoring (see Chapters 6 and 8). Perhaps the assumed benefits and need for collective decisions by all stakeholders that underpins participatory monitoring needed to be questioned?

A second example relates to the chosen indicators. Following the intense participatory design process, an interim assessment of who was using the monitoring data that had been agreed as essential was disappointing. Was participation in indicator development and overall design not enough to ensure active use of the information? Apparently not. This led us to appreciate the importance of understanding how information is used to inform decisions in different decision-making spaces and the role of informal sharing

(see Chapters 6 and 8). Perhaps monitoring that was driven not by information but by decision-making spaces would look quite different? Clearly, a critical examination was needed of the expectations and process of participatory monitoring to strengthen sustainable resource management.

Amongst these groups in Brazil, 'tiririca' has now come to symbolise the complexity of developing a learning process based on monitoring concerted action for sustainable municipal development. It is also an image that has produced nods of recognition for those in other organisations and other parts of the world facing similar challenges. These challenges are well known to those seeking pro-poor social change in collaboration with an ever-changing kaleidoscope of partners. Such efforts requires deliberate processes of collective learning which can be furthered through monitoring. But, as I will argue, it is not as straightforward as suggested in the available literature.

Collective learning is commonly considered to result from 'participatory monitoring and evaluation' (PM&E). However PM&E is based on simplistic assumptions as I will discuss in Chapters 5 and 6. Our work in Brazil was no exception. Such assumptions included: the ease of identifying indicators to monitor and of translating the data through collective analysis into useful information, the existence of communication lines amongst the actors that allow timely exchange of relevant insights, the uptake by end-users of these insights, compatibility of information needs amongst the partners, and their commitment to sustain joint monitoring efforts.

Undertaking participatory monitoring that supports rural resource management continues to be over-simplified by many proponents (*cf.* Abbot and Guijt 1998; Estrella *et al.* 2000; Probst 2002). As I will argue in the thesis, this is due to erroneous methodological assumptions. Such assumptions must be made explicit and then examined (repeatedly) as part of developing a monitoring process that can generate insights to improve action.

This brings me to the title of this thesis – seeking surprise. The thesis has been a 'surprising' journey of reconsidering my own assumptions about how monitoring works and coming to new understanding. 'Surprise', in my case an extended period of discomfort about the unfolding of events that did not match my expectations, lay the foundation of my questions and ideas. I came to enjoy uncomfortable sensations of surprise as they were, I knew, the opening of potentially interesting insights. My own cognitive dissonance (see Chapter 7) has been, for now, partly resolved. In this book, I also argue that we need to consciously seek surprise and embrace it as a window of opportunity to reconsider our beliefs and assumptions to align better with the

world around us. Thus 'seeking surprise' becomes an important monitoring principle (see Chapters 3, 6, 7 and 8).

## **1.2 Institutional Transformation, Messy Partnerships, Collective Learning and Monitoring**

### **1.2.1 About Boundary Objects and Fuzzwords**

In this section, I discuss terminology that is central in this thesis. These terms – institutional transformation, messy partnerships, collective learning, and monitoring – present problems as they are all so-called 'boundary objects' (Brand and Jax 2007). A boundary object is 'a term that facilitates communication across disciplinary borders by creating shared vocabulary although the understanding of the parties would differ regarding the precise meaning of the term in question (Star and Griesemer 1989)' (ibid:22-23). It is their vagueness and malleability that gives 'boundary objects' their bridging function between different disciplines and between science and policy or practice. Commonly used boundary objects include resilience (ibid) and sustainability. However, Brand and Jax argue that such concepts can provide obstacles to science due to their lack of clarity and also hinder implementation as they can 'hide conflicts and power relations when different persons agree on the need for sustainability when in fact meaning different things by it' (ibid:23). Expectations diverge or the concepts are difficult to operationalise. The problems of fuzzy definitional boundaries of boundary objects are compounded when several are used interactively.

Despite the limitation of the terminology I have chosen, they serve my purpose as they deviate from some of the 'buzzwords and fuzzwords' (Cornwall 2007) that are so prolific in the development discourse. By discussing these terms as a set of interrelated ideas, I make use of the idea of a 'chain of equivalence' – the more words in the chain, the more the meaning of any of those words comes to depend on the other words in the chain. Cornwall explains:

'Used in a chain of equivalence with good governance, accountability, results-based management, reform, and security, for example, words like democracy and empowerment come to mean something altogether different from their use in conjunction with citizenship, participation, solidarity, rights, and social justice. In either chain, other words that might be added – such as freedom – would come to mean quite different things' (2007:482).

Hence the terms I have chosen to articulate the challenge of this thesis constitute a chain of equivalence – sustainability, social justice, institutional transformation, equitability, messy partnerships, collective learning and monitoring. I specify how I use several of these terms in more detail below.

### **1.2.2 Seeing the Problem and Type of Change Needed**

The type of rural resource management concern that lies at the heart of this thesis relates to the unabated levels of poverty and environmental degradation and their mutual reinforcement. The empirical work from Brazil discussed in this thesis revolves around addressing such concerns and is driven by a vision of transforming the institutions and practices that hinder sustainability and equitability (see FIGURE 1-1). I will refer to this type of development effort as ‘institutional transformation’.

By institutions, I mean the formal and informal ‘rules’, regular patterns of behaviour and various forms of organisation across the state, business and civil society (Woodhill forthcoming). This includes the languages, beliefs and values and theories about how ‘social and natural life works’ (ibid). Some institutions are formalized, such as laws, while others, such as social customs, are informal. I discuss institutional transformation in more detail below.

The problems that shape the vision of those seeking to reduce their impact (see FIGURE 1-1) are complex and constitute ‘wicked problems’ (Rittel and Webber 1973). These are the opposite of ‘tame’ problems to which a linear, analytical, problem-solving process can be applied. Described in relation to social policy planning at the time, these problems are recognised in more recent times as a good descriptor of the challenge of sustainable resource management (Woodhill and Röling 1998; Guerin 2007). Such problems constitute webs or clusters of interrelated problems with high levels of uncertainty and diverse competing values and stakes. They cannot be resolved by individual actors, as solutions for one group may generate problems for another.

A wicked problem can be recognised by looking for divergence:

‘If requirements are volatile, constraints keep changing, stakeholders can’t agree and the target is constantly moving, in all likelihood, you are dealing with a wicked problem. If considerable time and effort has been spent, but there isn’t much to show for it, there is probably a wicked problem lurking somewhere. ... The most fundamental rule for handling wicked problems is that they must not be treated like tame problems.’

(Poppendieck 2002)

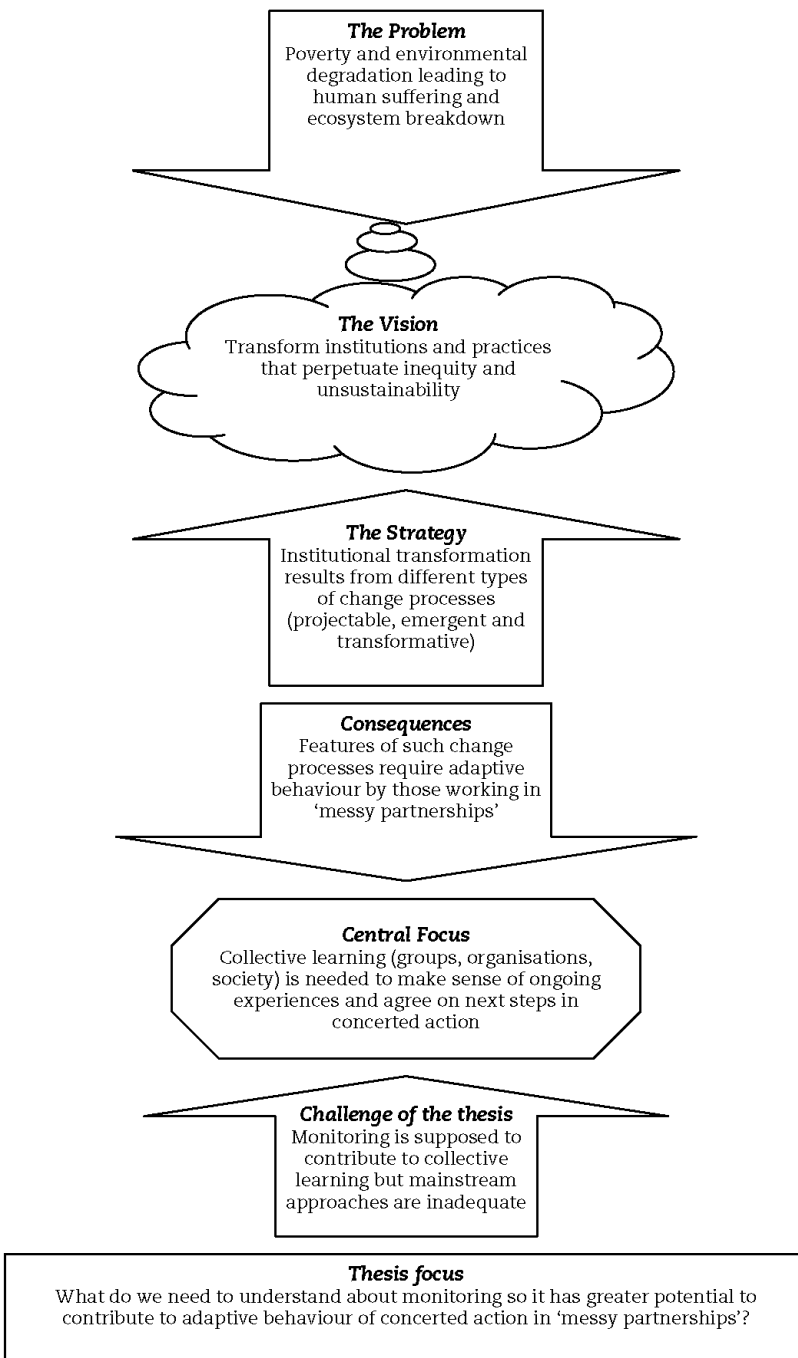


FIGURE 1-1 The relevance of monitoring for poverty and environmental degradation

Wicked problem situations are often central in institutional transformation, what others call ‘developmental social change’ (Reeler 2007) or simply ‘social change’ (Guijt 2007a). Institutional transformation as a development strategy involves deliberate interventions seeking systemic reforms of institutions to favour the poor and the environment. Such development means supporting poor people in their battle with institutionalised injustice-triggered poverty. Institutional transformation requires facilitating changes in vulnerable constituencies and among those who decide on resource allocation. Development efforts need to challenge power inequities and dominant discriminatory norms in favour of the marginalised, which requires structural change of society, its institutions and norms. Therefore, it is not about planting forests or building latrines so much as how the forests are planted and latrines are built, the power and equity issues that lie underneath the lack of access to forest products or latrines. The process of generating collective insights and action becomes critical, not just the result.

Institutional transformation can occur through two interacting routes. FIGURE 1-2 illustrates how institutions create the (dis)incentives for individuals and groups to behave in specific ways. Such behaviour can either ‘either reinforce or undermine and change an institution’ (Woodhill forthcoming). Yet individuals and organisations also have their own goals and objectives,

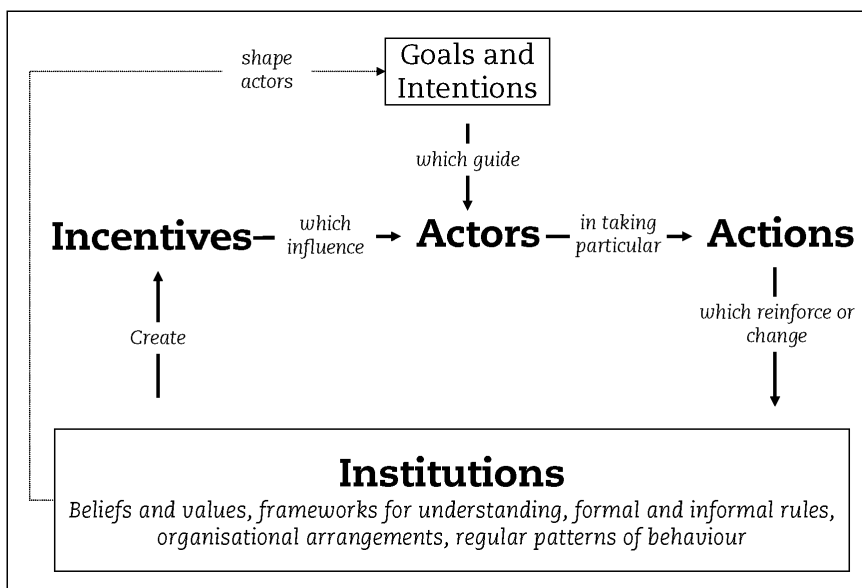


FIGURE 1-2 Institutional transformation (Woodhill forthcoming).

also shaped by institutions. Hence institutional transformation can occur where individuals/groups have divergent goals and intentions from the institutional norm – and are guided by these goals and intentions in undertaking activities that aim to shift the norm. Institutional transformation can also occur where institutions, such as legislation that favours bank loans for small-scale farmers, oblige those actors who maintain discriminatory intentions vis-à-vis this group to consider changing them.

Institutional transformation can be understood as a mix of three types of change processes: emergent, transformative and projectable change (Reeler 2007). Emergent change, which Reeler argues is the most prevalent and enduring type, describes the daily ‘unfolding of life, adaptive and uneven processes of unconscious and conscious learning from experience and the change that results from that’ (ibid:10). Transformative change emerges in situations of crisis or entrenched thinking. Different from emergent change, which involves a learning process, ‘transformative change is more about unlearning, of freeing the social being from those relationships and identities, inner and outer, which underpin the crisis and hold back resolution and further healthy development’ (ibid:12). Finally, Reeler turns to ‘projectable’ change processes that are most effective under relatively stable conditions and relationships and for addressing more tangible needs. This is the type of change that has characterised the planning, monitoring and evaluation practices within the development sector to date.

Reeler stresses that, though these forms of change intermingle, under certain conditions some forms dominate, support or induce another kind of change and dictate the terms of development. As I will discuss in Chapters 5 and 6, the empirical work in Brazil illustrates the intertwining of these forms of change for rural development and resource management in the face of ‘wicked problems’.

When undertaking institutional transformation strategies to address diverse types of, it is important to understand key features that have significant implications for monitoring.

### **1.2.3 Features of Institutional Transformation<sup>1</sup>**

Institutional transformation (or developmental social change) is characterised by five key features. These are: non-linearity and unpredictability of change; multiple efforts on multiple fronts; fuzzy boundaries; the difficulty

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<sup>1</sup> This section is based on Guijt 2007.

of recognising 'valid' results; and the long timeframe for resolution.

Structural changes in rural development and resource management that tackle underlying injustices do not follow a linear or predictable trajectory, with uncertainty beforehand about impact and the most effective route of interventions. These complex change processes are multi-dimensional and result from multiple actions and circumstances, involving a mix of intentional and opportunistic actions. Furthermore, the challenges faced shift, with some obstacles fading while others surface. Thus rigid actioning plan or accountability around specific results are potential hindrances for strategic efforts. There must be space for seizing the moment and unanticipated innovations. Objectives shift as a result of contextual changes but also through compromises resulting from working in alliances, thus making problematic the use of pre-set indicators and strict adherence to predetermined objectives, as is common in mainstream monitoring and evaluation (M&E).

Second, the system-wide change that is being strived for requires efforts by multiple groups on diverse fronts. Hence, focusing on one component or seeking attribution of impact in terms of specific players or efforts is of questionable accuracy and value. The process and multi-dimensional nature of emergent change means that efforts intertwine in changing contexts, goal-posts inevitably shift, and impact is perhaps best described in terms of 'emergent' phenomena<sup>2</sup>. Mainstream M&E approaches based on fixed, time-bound achievements and segmented realities fail to do justice to sustained, intertwined efforts.

Development processes with fuzzy and moving boundaries requires valuing incremental shifts. A key problem occurs if institutional transformation is viewed not as a process with progress markers, but rather as an end point. This leads to a focus only on concrete outcomes and ignoring the value of small, incremental changes. There is a need to capture the little moments of truth, the value of the accumulated small steps, rather than only the final result:

... this [slum dweller relocation] project was clearly successful ... There were tangible, quantifiable outcomes.... partnerships involved, good governance, gender equity, and civil society participation...And yet ... this kind of assessment is unsatisfactory and even misleading ... without the

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<sup>2</sup> An emergent property becomes apparent when several simple entities or processes operate in an environment but form more complex behaviours as a collective. Certain properties emerge that the entities/processes do not have themselves. Emergent properties cannot be predicted from the attributes of the constituting entities.

full examination of the depth of the relationships of trust that evolved over years, the risk taking and creativity that produced workable innovations, the 'toolkit' processes that were refined and systematized over time, the story is a thin one. If the years of working and waiting, of two steps forward and one back, are not valued and not given their due, then the final resulting success is not properly understood. This not only fails to recognise the difficulties, tensions, triumphs and very essence of development, it then fails to help us change our understanding of development – perpetuating strategies and policies that have stood in the way of change that has benefited the poor. We need to see the full complexity and non-linear nature of such social change processes if we are to learn how to 'do development' differently (Patel 2007).

A fourth feature is that defining success and failure in a complex process poses interpretation difficulties. Part of the problem is the difficulty of striving towards results that may not be measurable, as the impact can take the form of something not occurring (or occurring less severely) or sustaining a past gain. It is not always about an improvement or a tangible change. A seeming success can suddenly shift from an upward change trend to stagnation or deterioration – or the reverse. Years of struggle can unexpectedly yield results. Such struggles often entail activities, including organising dialogues, lobbying governments and advocacy work, of which the intermediate results are not always evident. Although targeted campaigns have led to quick results, focusing entirely on a tangible change as evidence of impact ignores what are often slow shifts in norms, institutions, political reform over the longer term.

Finally, a timeframe mismatch often occurs between the long-term impacts and expectations of short-term externally funded initiatives. Many intermediary organisations, such as NGOs, contribute to this by romanticizing and 'commoditizing' their social change work, in the process creating unrealistic expectations of the timeframe for goal achievement. Mainstream M&E processes are based on defining specific changes within the given time period that is commonly three to six years. Yet the timeframe to effect social change can be decades and requires negotiating which aspect of change is being expected and will be valued within a certain time period.

Responsiveness to signals about what is and is not working and changing focus and strategy en route are crucial to deal with the non-linearity and unpredictability of change processes that stretch for many years. These five features mean that adaptive behaviour by those involved in institutional transformation is critical.

#### **1.2.4 Messy Partnerships and Adaptive Behaviour**

The 'wicked problem' nature of rural development and rural resource management requires a convergence of efforts by diverse stakeholders on multiple fronts. Strategic alliances become critical and can engage any mix of the following:

- > citizens by building rights awareness and capacities, and mobilising their collective action and leadership development;
- > civil society organisations to act on behalf of the vulnerable, marginalised and dispossessed and to facilitate their empowerment;
- > state agencies to influence policy at different levels, to ensure accountability and transparency of government funding, and contracted or collaborative programme/service delivery;
- > the business sector by monitoring corporate behaviour, accessing markets, and economic policy influencing; and
- > funding agencies by influencing their policies, strategies and procedures to make possible development innovations that sustainably improve the lives of the poor.

I refer to the convergence of such actors for concerted action as 'messy partnerships'. Even when the full diversity of stakeholders is not present, but the work involves coalitions of like-minded NGOs and CBOS, then differences will exist in governance structures, culture, mandate, capacities, priorities and commitment to collective efforts. Such differences are the basis of the 'messiness', the reality of linkages that cannot be predicted and forced into controllable relationships. What keeps the partnership working is a common overarching vision for a geographic area, a particular social group, or a specific theme. The commitment to the partnership is sustained as long as the vision remains shared and the different partners perceive an added value in joint work. A powerful driver for partnerships is also inter-dependence, the recognition that one can only reach one's goals if others also reach theirs.

This type of relationship for development contrasts with the vision of organisational hierarchies and contractual relationships that pervade much of the development sector. Instead messy partnerships can be viewed as a social network among organised groups that maintain relations due to a shared vision and ideals. Another way to understand 'messy partnerships' is as a heterarchy. A heterarchy is a network of elements, or partners sharing common goals in which each element or partner shares the same position of power and authority (Wikipedia contributors). This contrasts with a hierarchy where the locus of power resides at higher levels, with in both cases power dynamics shaping the actions of the system. A heterarchy can stand on its

own or be related to some level of a hierarchy, while it can also house an internal hierarchy.

Messy partnerships are of wider interest for several reasons<sup>3</sup>. Even so-called hierarchies or networks will often operate more like 'messy partnerships' as coercive action is not always effective and voluntary collaboration is needed. Power resides in different places in a hierarchy, hence its resemblance to a heterarchy. Furthermore, the reference to 'partnership' in official development rhetoric shows no sign of abating and in the increasingly networked world, opportunities to create novel and strategic coalitions are increasing. Finally, many rural resource management problems are 'wicked' in nature and thus require the type of 'messy partnerships' which I encountered in Brazil.

The Brazilian case studies on which the empirical work in this thesis is largely based are examples of such partnerships. In Brazil, I looked at strategic coalitions of civil society organisations whose perspectives on the necessary societal transformations and strategies for achieving this have co-evolved over time. In Chapters 5 and 6, these coalitions are discussed in detail. They consist of: *local NGOs*, officially mandated and guided by a council composed of small-scale farmers and scientists but conceptually and practically driven by technical professionals; *small-scale farmers unions* with three-yearly elections and leadership changes and nested in federated structures; *municipal governments* with elected officials and non-elected bureaucrats that sit uneasily side-by-side; and *research institutions* with more focused and time-bound engagement. The motivation of this mix of stakeholders to participate in collaborative learning and action is highly personal and dynamic, needing to be fed by continual efforts to maintain and strengthen trust (Duran 2002).

'Messy partnerships', as I define them, are composed of organisations or groups with specific mandates and governance structures – some are elected, others not; some are time-bound, others not. The unique mandates of each member means dealing with different:

- > communication styles and abilities;
- > information needs;
- > degrees of influence in decision-making on the direction of concerted action and related planning and monitoring processes; and
- > legal responsibilities in contracts with funding agencies.

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<sup>3</sup> With thanks to Dr. Rick Davies.

The members of the 'messy partnership' hold different degrees of allegiance to the partnership. The partnership as a whole cannot be assumed to have some type of stable identity that can be held to account externally for the totality of its actions. Several other salient features define a 'messy partnership':

- > continual evolution of composition of the partnership
- > driven by common concerns that require regular collective revisiting
- > maintained by personal relationships of trust and reciprocity
- > no guarantees over time of shared commitment to collaboration;
- > operates through voluntary agreements, hence not possible to impose a singular approach to establishing objectives, M&E approaches, specific time frames for agreed activities, and so forth; and
- > usually requires deliberate facilitation, though who is responsible and how this happens may well evolve.

One might at this point begin to wonder whether a 'messy partnership' is a rare event that is inevitably doomed to failure due to the complexity and multiple requirements for it to work. This impression would be mistaken. Messy partnerships are increasingly common as protagonists realise their inter-dependence in development dilemmas and seek to learn how to work in synergy.

Some of these features sit uncomfortably with the assumptions embedded in the mainstream M&E paradigm, presenting challenges for those seeking a singular, yet multi-functional information collection and analysis system. Dealing with 'messy partnerships' requires a different awareness and procedures, for example, a thorough understand of existing planning and M&E processes, particularly the informal ones, of all partners involved, in order to find effective entry points into collective learning. Facilitating this process requires dogged and continuous awareness about the need to negotiate priorities and clarify roles and responsibilities. Chapters 6 and 8 will discuss this in more detail. I now turn to the question of what is needed for the adaptive behaviour of 'messy partnerships' to emerge from deliberate choice, rather than crisis or ad-hoc events.

### **1.2.5 Levels of Collective Learning**

How can a diverse and fluid configuration of groups, not necessarily accustomed to concerted action, work well together around a 'wicked problem' in rural resource management? If societal adaptation and innovative change through deliberate efforts is part of the trajectory of change in rural resource

management, then learning becomes essential. Learning is needed for several purposes: practical improvements, strategic adjustments and changes, and improving the learning processes themselves (Argyris and Schön 1978; Flood and Romm 1996)<sup>4</sup>. I define learning in more detail in 1.2.7.

This thesis looks at collective learning and its nested nature. In Brazil, different 'collectives' can be discerned around which learning takes place. At the simplest level (small) group-based learning takes place, such as farmers working together on a similar interest in agro-forestry, silage alternatives or honey production (see Chapter 6). A different collective is that of organisations, organisational learning, which occurs within the farmer trade unions or the NGOs that support the farmers (see Chapter 8).

A third level is that of 'societal learning' which involves the different organisations and groups in the two Brazil research sites, each with their constituencies, staff or members, and which required the convergence of information, sense-making and decision-making. Societal learning can occur when different groups, communities, and multi-stakeholder constituencies engage actively in a communicative process of understanding problematic situations, conflicts and social dilemmas and paradoxes, creating strategies for improvement, and implementing. Civil society organisations often take on special roles in this process. Brown and Timmer (2006) distinguish five roles: identifying issues; facilitating voice of marginalized stakeholders; amplifying the importance of issues; building bridges among diverse stakeholders; and monitoring and assessing solutions. As I will discuss in Chapters 5 and 6, the Brazilian NGOs took on these roles.

The overarching concept of 'social learning'<sup>5</sup> offers a way to understand the assessment and reflection processes needed for collective learning in general. It has been described by various authors in broad terms as a framework and process for knowledge generation and concerted action that underlies societal adaptation and innovative change (Holling 1995; Parson and

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<sup>4</sup> Also commonly referred to single-loop and double-loop learning (Argyris and Schön 1978). With single-loop learning, individuals or groups (including organisations) modify actions after comparing results with expectations. With double-loop learning, the values, assumptions and policies underpinning the actions are questioned and perhaps modified.

<sup>5</sup> As a concept, social learning has two distinct definitions. The first and oldest, which is not relevant here is that of 'behaviour modelling' or 'imitation' and emerges in the literature on criminology and education (Bandura 1962). This is more than simply a difference in numbers, i.e. learning in dyads (Bandura's version) versus in groups. Social learning as used in this thesis refers to concerted action (diverse behaviours that seek to work in synergy) rather than mimicked behaviour.

Clark 1995; Röling and Wagemakers 1998; Waddell 2005; Gurstein and Angeles 2007; Wals 2007). The term 'social learning' is generic and, in and of itself, neutral, hence opening it up for co-option and confusion. The emergence of suicide bombers or manipulation by farmers of food industry standards (Lawrence 2005) can be cited as examples of 'social learning' as these, too, concern concerted action that seeks to resolve a perceived societal problem through an 'innovative' change. However, such manifestations are not included in the definition of social learning I use here. This does not mean that the outcomes of social learning are not sometimes contested. For example, in Brazil, large scale farmers resist the emergence of more articulate and economically solid small-scale farmers, as this challenges their long held power over municipal issues.

The overarching concern of 'social learning' in this thesis is to further sustainability through the critical learning capabilities of multi-stakeholder constituencies who face complex, problematic matters of common concern (Bawden *et al.* 2007). This means problematising societal injustice, challenging those hindering the claiming and asserting of rights, and re-infusing democracy with responsiveness. This focus is based on a perspective that modern society must learn how to respond to the often negative consequences of its own actions. But it must also learn how to overcome the limitations of current ways of 'seeing' and 'doing' – innovation means seeing and challenging long held epistemic assumptions. Modern societies need to learn more quickly, more effectively, and much more critically, than societies in the past that faced slower and less globally interconnected social and natural changes. This, in turn, requires citizens willing to participate actively in democratic deliberations and capable of learning collectively, with and from each other.

The understandings of social learning in the development discourse as discussed here are guided by several common normative elements or 'principles':

- > Seeking to contribute towards a more just and sustainable world (see previous paragraph) and therefore concerned about questions of empowerment, poverty, ecology and democratic participation;
- > Seeking to engage actively all relevant stakeholder groups, hence 'participatory' in a broad sense';
- > Valuing experience as the basis of individual and collective learning;
- > Recognising that knowledge is emergent and co-constructed, rather than absolute and objective;

- > Recognising that social learning involves 'complex behaviour (emerges via multiple efforts in non-linear, unpredictable ways), hence values systems thinking; and
- > Valuing the importance of facilitation that focuses on the process of joint discovery, inclusion, and solution seeking.

Interpretations of 'social learning' vary in several ways. First, variations occur around level, with social learning being viewed either as group-based or societal-level processes. Second, while the co-production of knowledge and plans is generally considered important, 'concerted action' is not always included as part of social learning. A third variation occurs between seeing social learning as fact-finding, negotiation, and planning of collective steps or as based on Kolb's experiential learning cycles (Kolb 1984). A fourth variation lies in the levels or aspects of learning that are appreciated, made explicit and tackled. The focus solely on the collective level contrasts with views of social learning that include personal transformation or individual learning.

A final important difference is the extent to which social learning is viewed more as a means and method or a fundamental questioning of societal priorities and processes, especially underlying power inequalities. Social learning is sometimes presented as a set of steps that emphasise working with all key stakeholders from the onset. A more strategic perspective on social learning stresses the importance of critically questioning how society needs to change and organise itself to achieve sustainable development, including power inequality as a concern and the politics of change as important.

Irrespective of which variation is central, the common process is one in which group efforts, iterative cycles of action and sense-making, and consensus seeking are critical. In this thesis, I will discuss how monitoring figures in such a process at three interacting levels of collective learning: group, organisational and societal.

### **1.2.6 The Problem with Monitoring**

The past 15 years has seen increasing recognition that the dynamics of social, environmental and economic conditions require rural resource management approaches that are adaptive and negotiated. The emergence of discourses such as adaptive management, collaborative resource management and sustainable rural livelihoods as discussed in Chapter 3 are part of this recognition. Such discourses refer to monitoring as a key building stone, yet do not define it, thus potentially jeopardising the hope they offer of resolving the 'wicked problems' being tackled.

By and large, the reality is that mainstream approaches to M&E do not serve rural development and resource management that seeks institutional transformation through messy partnerships. And it is the mainstream of M&E that drives most monitoring practice in development. The core problem with mainstream M&E practice is its emergence from a theory of change that is based on assumptions which are not universally valid, including the universal validity of 'projectable' change or 'tame problems' to development. Reeler summarises as follows:

'Created to help control the flow of resources, these frameworks have, by default, come to help control almost every aspect of development practice across the globe, subordinating all social processes to the logistics of resource control, infusing a default paradigm of practice closely aligned with conventional business thinking. As such, Project approaches to change bring their own inbuilt or implicit theory of social change to the development sector, premised on an orientation of simple cause and effect thinking. It goes something like this: In a situation that needs changing we can gather enough data about a community and its problems, analyse it and discover an underlying set of related problems and their cause, decide which problems are the most important, redefine these as needs, devise a set of solutions and purposes or outcomes, plan a series of logically connected activities for addressing the needs and achieving the desired future results, as defined up front, cost the activities into a convincing budget, raise the funding and then implement the activities, monitor progress as we work to keep them on track, hopefully achieve the planned results and at the end evaluate the Project for accountability, impact and sometimes even for learning.'(Reeler 2007:6)

For 'projectable' changes, mainstream monitoring is adequate. But when it concerns the other types of change processes, then other assumptions and features of change need to inform the monitoring process.

Mainstream M&E systems and processes have evolved from an image of development as infrastructural. With institutional transformation occupying an increasing proportion of development agencies' priorities and budgets, tensions related to the expectations of mainstream M&E are increasingly urgent to resolve (cf. Pratt 2007). One growing concern lies with the problematic core motivation that drives M&E, which leads to problems in practice (Batliwala undated). Many M&E efforts occur because funding agencies require them, enabling organisations to sustain or obtain funding that is used to expand and consolidate organisational structures rather than innovate or invest directly. Result assessment data are rarely shared with primary

stakeholders, and are rarely involved in setting goals or shaping evaluation frameworks or in assessment processes themselves. Furthermore, such processes are rarely accompanied by or lead to critical reflection on or recasting of the theories of change that guide the work.

Criticism is growing about the limitations of mainstream M&E practice to do justice to development as institutional transformation. Dlamini (2006) refers to the dominance of an instrumentalist managerialist approach to M&E that interferes with organisational intentions 'to stand back from their 'doing' and genuinely try and see how things are going' and inhibits the creation of the relationships on which change is based. The Institute for Development Research Canada has developed an alternative approach, outcome mapping (Earl et al. 2001), based on a recognition that development is often not possible to cast in terms of 'projectable change'. And there is a growing appreciation of the role that narratives play in M&E (Davies and Dart 2005, see Chapter 7; Abma 2007). But besides methodological innovation, a more fundamental reframing of monitoring is necessary, to which this thesis seeks to contribute.

### **1.2.7 Linking Monitoring and Learning**

Four terms are important in this thesis – M&E, PM&E, monitoring and learning. In Chapter 4, I will discuss M&E in depth with a focus on the dominant practice, namely programme logic-based monitoring. I will refer to this practice throughout the thesis as 'mainstream M&E', as it is, very much the mainstream in the development sector. In Chapter 5, I will discuss participatory M&E in some depth, discussing how, in theory, it differs from M&E.

In this section, I wish to focus on 'monitoring' and 'learning' in more detail as these two terms form the backbone of the thesis. Both terms are examples of boundary objects (see 1.2.1) in that they are subject to multiple interpretations, as I will illustrate in the case of 'monitoring' in Chapters 3 and 4. Hence seeking to relate the two terms depends on which definitions one picks.

In the development sector, expectations have grown over recent years about the potential of monitoring to contribute to learning as the now widely used phrase 'accountability and learning' illustrates. Monitoring becomes a sub-system of learning. But what distinguishes the two concepts in practice? Are they indeed different? FIGURE 1-3 illustrates the fluid definitional membrane of monitoring. The smallest box 'Mainstream' contains the activities usually associated with monitoring. As I will argue in this thesis, if mon-

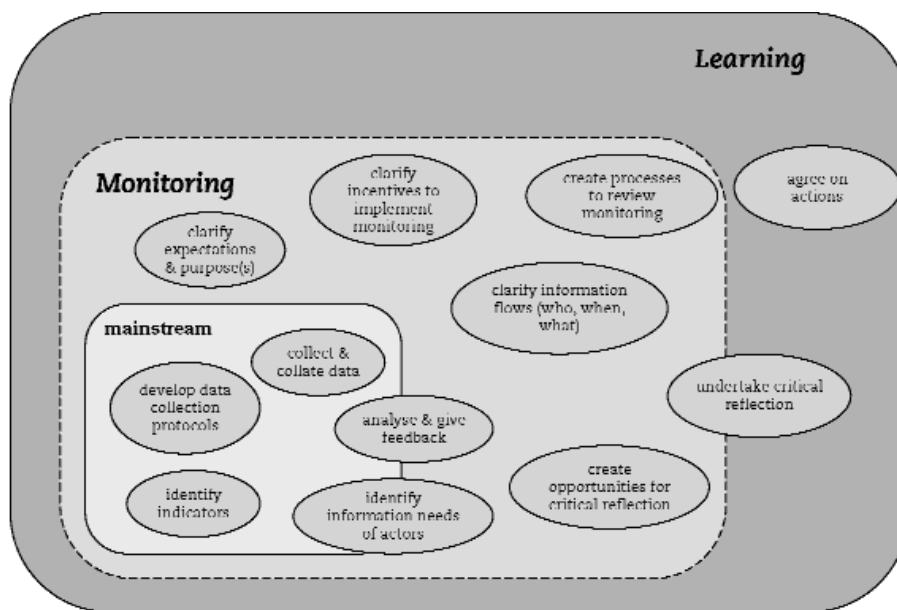


FIGURE 1-3 The sliding scale from (mainstream) monitoring to learning.

itoring is, indeed, to make a contribution to 'learning' then a wide range of other activities are needed to fulfil that expectation. These activities are found in the intermediate box 'Monitoring'. The more of these activities that are undertaken, the more the definitional membrane of monitoring stretches towards that of learning, the largest box. I discuss the relationship between the two terms in Chapter 8, where I suggest that taking learning as the core idea, rather than 'monitoring' may offer some advantages.

Defining learning is, therefore, crucial. In this thesis, a Kolbian understanding of experiential learning is central. Kolb (1984) describes experiential learning as a cyclical process of reflecting on experience, conceptualising meanings that arise from reflection, deciding how new conceptual understanding can be used to improve future practice, and taking action which leads to new experience. Hence 'action' is integrated in this definition of learning. Maturana and Varela echo the action element in their definition of knowledge: 'effective action in the domain of existence' (1987). All learning depends on feedback (Sterman 1994), hence the iteration between theory and practice, or 'praxis' is important in experiential learning (Bos 1974; Bawden and Packham 1993).

Learning entails not just pragmatic problem-solving but also reflection on the process by which this happens and the underlying perspective on

knowledge. Hence at its fullest, learning entails a self-reflexive, self-critical process that means developing the capacity to:

- > learn to deal with 'matters to hand' of everyday concern (cognition);
- > learn how to deal with how we deal with such matters to hand (meta cognition); and
- > learn about the nature of knowledge and its influence on our ways of knowing (epistemic cognition) (Kitchener 1983).

So what constitutes proof of learning? The focus in this thesis lies with furthering social justice and environmental sustainability. Box 1-1 illustrates some examples of the types of improvements in actions, understanding and processes that can occur, when monitoring contributes to learning.

But there is more at play when it comes to learning. FIGURE 1-3 is simply a checklist of activities needed, as I will argue, to contribute to learning. It portrays mainstream monitoring, for example, as a simple feedback loop model – define indicators, then collect and collate data. What FIGURE 1-3 does not show is what happens behind the scenes. As Sterman argues 'A simple feedback loop model of learning obscures the role that mental models and strategy, structure, decision rules play in our decision-making process' (1994:26). A wide range of factors influence each of the activities in FIGURE 1-3.

FIGURE 1-4 shows a schematic process that illustrates the interplay of factors involved in sense-making and responding to change. A response (or action) results from a continual interaction between the events and ideas

**Box 1-1** Reported local benefits of collaborative monitoring (Guijt 2007e)

- > More accurate, detailed understanding of institutional, environment and resource problems
- > Greater mutual understanding of forest management visions and options
- > More informed and/or equitable decision-making about forest management
- > Increasing capacity and willingness to question previously accepted norms (institutionally and technically)
- > Resolution or management of conflicts
- > Shifting perception from monitoring as 'policing' to monitoring as mutually beneficial
- > Better social and organisational interactions (i.e. building social capital) and communication and (inter)group skills
- > Increased equity in who is heard and to whom benefits flow
- > Enhancing the sustainability of new, less harmful forest management practices and thus reducing harmful forest resource practices

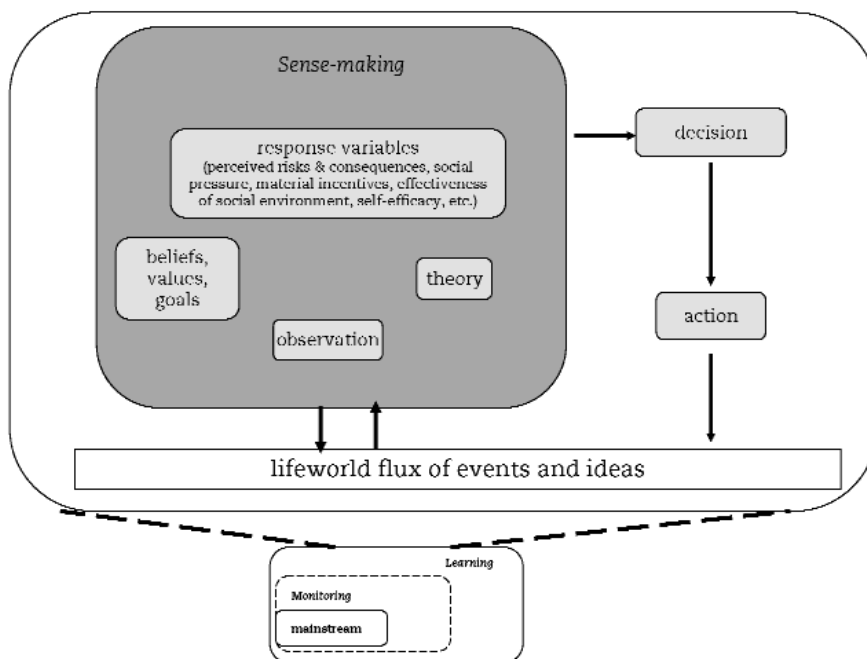


FIGURE 1-4 Behind the scenes of monitoring (after Woodhill 1999; Leeuwis 2002; Röling 2002).

encountered in daily experience and sense-making. Sense-making involves assimilating observations, with beliefs and values, current interpretation (theory) and other response variables (Leeuwis 2002), to come to actionable options that are then subject to decision-making.

Sense-making becomes a process of inner dialogue if it occurs at the level of an individual and lies at the heart of formal and informal debates when it involves more than one individual. In both cases, sense-making can be more or less deliberate. Monitoring can make learning – and sense-making – more conscious and systematic through the deliberate implementation of the activities outlined in FIGURE 1-3. I return to ‘sense-making’ in Chapter 7.

I now examine the emergence of interest in the thesis topic.

### 1.3 The Growing Interest in Participatory Monitoring for Rural Resource Management

Were we an aberration, there in Brazil, struggling to make monitoring work for our particular ‘wicked problem’ and with our motley mix of change processes and stakeholders? A look at the literature shows monitoring is burdened by very high hopes in the rural development sector.

Monitoring for improved information and decision-making has captured the attention of many thinkers and practitioners in rural development and resource management – scientists, activists and policy analysts alike. Its central role is evident in several prominent discourses that are influential in rural development: sustainable rural livelihoods (Carney 1998; Scoones 1998; Ashley and Hussein 2000), collaborative resource management (Borrini-Feyerabend *et al.* 2004), adaptive management (Gunderson *et al.* 1995a; Stringer *et al.* 2006), participatory development (Abbot and Guijt 1998; Estrella *et al.* 2000), natural resource policy (Leach and Mearns 1996; Roe *et al.* 1999), and reflexive modernisation (Beck 1992). It is referred to in terms of a core design principle of common-pool resource systems (Ostrom 1990), the basis of countless recommendations of Agenda 21 and other global forums (UNCED 1992), the engine of collaborative resource management due to its assumed capacity to fuel ‘sustained participation’ (Borrini-Feyerabend *et al.* 2004), the lynchpin of sustainable rural livelihoods thinking (Carney 1998), and a frontier of innovation for sympathetic critics of adaptive management (Dovers and Mobbs 1997; Allen *et al.* 2001)

Some of these authors have moved beyond the ‘projectable changes’ mentioned earlier and have taken on board certain issues with which this thesis is concerned. Indeed, I build on them in many ways. Yet, also in these discourses, monitoring is widely viewed in simplistic terms as illustrated by statements in the International Soil Conservation Organisation 1996 pre-conference issue paper:

‘Because soil and water conservation now encompasses a wider range of disciplines than before, the need to monitor what actually happens on the land is even more urgent. ... Apart from keeping track of environmental changes, monitoring should also cover the whole range of variables now considered vital in soil and water conservation. These include social and economic conditions, changes in policy at different levels, institutional and legal capacities at all levels, and the framework of economic conditions. Above all, the conditions that affect local land users are particularly important. Monitoring should be designed to address their concerns. ... for monitoring to be effective, it is important to develop land degradation indicators... Furthermore local land users should be involved in both the design and the execution of monitoring. Experience shows that when people study their own environments, they are far more interested in the results... Involving them directly is probably the best guarantee that interventions will lead to more sustainable forms of resource use. ... Local efforts by land users could be even more valuable if greater effort were put into monitoring the impacts of natural resource management and proj-

ects, and if these impacts were measured with a long-term perspective.’  
(Hurni 1996:59-60)

This passage articulates high expectations of monitoring as enabling more ‘sustainable forms of resource use’. Assumptions about the link between monitoring and improved rural resource management in this text echo those I identify in Chapter 4, and include:

- > That the lack of information can be overcome as long as enough information on all possible variables is collected (‘the need to monitor what actually happens on the land’);
- > That indicators are the key (‘for monitoring to be effective, it is important to develop land degradation indicators’);
- > That participatory forms of monitoring are fundamental for success;
- > That involving local people, i.e. participatory monitoring, is compatible with extensive information needs deemed necessary for successful interventions; and
- > That it is feasible to combine local people’s interests with the need for longitudinal and extensive data sets and that political, technical, institutional, financial constraints can be overcome.

These convictions represent, by and large, the default view of monitoring that guides those involved in rural development, including those who have moved beyond ‘projectable change’ and those who have embraced participation and sustainable development. This default view starts with the recognition that the world is facing unprecedented pressures that are threatening rural livelihoods and clean (agro)ecosystems. At the same time, the pace of natural, economic, social, political and institutional change has accelerated such that we need high quality information systems at all levels to inform us of the current state in order to know how to act. Those who are actively trying to intervene in threatened life systems – including their own – need to know whether their actions are having an impact, and if not, why not and what to do differently. Hence the need for quick, focused, ongoing and collective learning via monitoring data, that assesses the value of current action in order to identify the elements of future action. Lessons need to be learned from yesterday’s and today’s experiences that will help them move towards that elusive goal of ‘sustainable development’. And monitoring can help with that, as long as all stakeholders are involved. Thus in this generalised view, monitoring is critical to deal with the multiple challenges and urgencies of rural life.

Few would argue with the basic intent in the description above. It is, as I will show in Chapter 4, a prevalent one. However, it is inadequate to guide prac-

tice and based on a series of presuppositions that have not been articulated or challenged sufficiently. The persistence of this partial and superficial understanding leads to monitoring processes that are often inappropriate or inadequate for concerted action, hindering the societal learning that is being sought.

Questioning and rethinking the understanding of monitoring as a process to foster learning for sustainable development is increasingly relevant in the light of three trends in development thinking. First is a growing unease about the effectiveness of aid and the limitations of current approaches to assess such effectiveness, particularly following the commitment to the Millennium Development Goals and concerns about progress towards their achievement (Collier and Dollar 2001; Commissie Dijkstal 2006; Hoek 2006; Inspectie Ontwikkelingssamenwerking 2006; Menocal and Rogerson 2006; Savedoff *et al.* 2006). Billions of euros are pumped into development initiatives around the world, often with inadequate understanding about impact or even outcomes. Hence any attempts to demonstrate effectiveness of investment through impacts on people and the planet is high on the development agenda. A second trend is the unrelenting urgency of the quest to ensure improved human wellbeing that does not jeopardise the environment. The challenges of 'sustainable development' and equitability are more urgent than ever. The perpetuation of poor development practice, despite attempts to identify and share lessons, indicate the need to understand better how to learn at a societal level. A third trend has been a growing recognition of the importance to manage through adaptations. Recent years have seen a shift in discourse in rural development and resource management from a controlling and forward planning one to that of adaptive management in the face of uncertainties and dynamic situations (Holling 1995; Dovers and Mobbs 1997; Roe 1998; Guijt 2007e; Leach *et al.* 2007). Thus recent resource management approaches stress the importance of 'monitoring' to learn ourselves out of resource-related problems, instead of basing all hope of success on enforcing comprehensive planning (see Chapter 3).

Together, these trends have led to ever louder calls to learn better, increase our understanding, improve our performance and be more accountable – and all eyes are turning to M&E approaches to fulfil these needs. Development actors, including government agencies, civil society, the business sector, funding agencies<sup>6</sup>, struggle with these demands, particularly

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<sup>6</sup> Recent new player is the Bill and Melinda Gates Foundation that will be spending \$3 billion each year (three times the GNP of Burundi and the same as Albania, 1998 statistics), and who have just established a new Impact Planning and Improvement Unit.

how to integrate 'learning and accountability', as the common cry is, and how to see and learn from the unexpected, not only the known.

So what do we have to work with? Monitoring is viewed by the mainstream as the systematic recording and periodic analysis of information (Davis-Case 1990:iii) for 'providing the people responsible for the work with sufficient information to make the right decisions at the right time to improve its quality' (Gosling and Edwards 1995:12). Much can and will be said about these definitions in Chapter 4. Of relevance at this stage are only two generic points. First, despite the definitional inclusion of analysis, monitoring in practice is largely viewed and implemented as a data collection exercise and rarely seen as a sense-making process or one in which meaning is negotiated. Second, is the focus on it being 'systematic', which in practice involves using predetermined indicators that track progress towards achieving objectives or ecological trends.

However, as I will argue (see Chapters 7 and 8), other types of information are needed to learn our way out of resource management challenges. Monitoring must also focus on mistakes, quality of performance, problems, feelings of unease about a situation and simply curiosity, in order to contribute to social learning. Particularly important are the unexpected impacts of interventions and surprising shifts in the operating environment that challenge our assumptions and turn (hidden) presuppositions into (explicit) assumptions. How can monitoring be understood and undertaken more broadly, so that the full diversity of information needs and learning purposes are met? This thesis represents an empirically-inspired exploration of these issues.



Source: IFAD 2002

## 1.4 The Core Questions of the Thesis and its Structure

My choice to look at the potential of monitoring and not evaluation is a conscious one. The distinction between the two terms that lends weight to the relative importance of monitoring lies, for me, in the idea of 'learning en route'. Evaluations are often contractual obligations that do not feed into organisational decision-making. Often, they involve one-off exercises and are too late to guide implementation, though potentially useful for next phases of funding or others to learn from elsewhere. Interim reviews can provide guidance en route but do not force organisations or alliances to institutionalise mechanisms of communication, dialogue and decision-making to continually improve action. Furthermore, the key discourses I discuss in Chapter 3 focus on monitoring rather than evaluation precisely because of the need to learn with regularity.

I summarise my research objective as follows:

*To analyse and describe how monitoring, undertaken within the context of messy partnerships seeking institutional transformation, could contribute to learning processes that can address rural resource management problems, and to draw the lessons for practice.*

The research objective brings me to five sets of questions:

1. How is 'monitoring' viewed by rural development and resource management discourses that advocate more adaptive forms of rural resource management? On what assumptions and presuppositions<sup>7</sup> about processes of monitoring, collective learning and improved action are these discourses based? What practical orientation do they give for learning-oriented monitoring? (Chapter 3)
2. What is the underlying logic – with related presuppositions – of mainstream monitoring approaches and hence what is the monitoring theory that is expected to guide practice? (Chapter 4)
3. What can practical experience from small scale rural change processes in Brazil and from a large rural development organisation show about what is needed for monitoring to contribute to collective learning? (Chapters 4, 5, 6 and 8)
4. What insights are offered by studies on cognition and organisational learning that can help fill the theoretical gaps and overcome the practical challenges of learning-oriented monitoring? (Chapter 7)
5. Given these empirical and theoretical insights, what would an alternative monitoring approach require so that it can trigger the forms of learning need-

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<sup>7</sup> An assumption is an explicit theory about cause-effect, a presupposition is a tacit assumption (Chapter 2).

ed to ensure adaptive and collaborative rural resource management?  
(Chapter 8)

The search for answers has led me to the line of reasoning as presented in TABLE 1-1.

Chapter 2 presents the theories used to guide the analysis and describes the methodologies used in the empirical sections. Chapter 3 summarises recent thinking on monitoring from three key rural development and resource management discourses that value learning and adaptive behaviour as the basis for sustainability and equity. These discourses are: adaptive management, collaborative resource management, and sustainable rural livelihoods. The chapter describes how these discourses view the role of monitoring for resource management and what, if any, practical approaches they suggest.

Chapter 4 turns to the mainstream M&E literature which appears to serve as the basis for most practical monitoring strategies. It exposes the underlying logic of the mainstream monitoring paradigm, thus providing a basis for comparison with empirical work. It highlights the relative paucity of clarity about monitoring, showing that it is often viewed and implemented as a mechanical, obligatory data collection process devoid of grounded understanding about collective analysis and learning. I use work from the International Fund for Agricultural Development (IFAD), a United Nations agency that funds rural development and resource management, to illustrate the limitations of mainstream understanding and question its validity.

A closer look at field evidence follows in Chapters 5 and 6, in which I discuss an action research process from 1996 to 2000 to develop a joint monitoring process in Brazil. Chapter 5 sets the scene, outlining the organisational context and the nature of the partnerships involved. It dwells on the nature of the social change work that is being undertaken and the implications for monitoring and learning. Chapter 6 outlines the action research process with two rural trade unions, farmer groups, and local NGOs, that involved testing the potential of participatory monitoring to guide rural resource management at a strategic and operational level. Despite its innovative nature, the participatory process was still based on several erroneous presuppositions about how monitoring processes could induce learning. Simply making a mainstream-inspired process more participatory was inadequate to lead to sustained learning processes. This chapter ends with a critical note on the expectations of participatory M&E as a workable alternative and identifies several important considerations to ensure it contributes to collective learning.

**TABLE 1-1** Thesis chapters, main purposes and lines of reasoning.**1 Introduction**

Introduction to the research topic and the main line of reasoning and structure of the thesis.

**2 Experience, Theory and Methodology**

Discussion of the sources that inspired the research questions, three aspects of theory used in the thesis (contextualising discourses, the 'theory of action' of monitoring, new domains of theories) and the research methodology.

**3 Perspectives of Rural Resource Management Discourses on Monitoring**

Over the past decade, three fields of practice and discourse have become increasingly popular for addressing critical problems of complex rural development and natural resource management: sustainable rural livelihoods, collaborative resource management, and adaptive management. All attribute great importance to the role of collective monitoring to generate new insights but none elaborate on its implementation or how it generates improved action. They appear to assume that mainstream monitoring concepts and practices can deal adequately with the required methodological issues and needs for rural resource management.

*However,*

**4 Understanding and Questioning Presuppositions about Monitoring in Mainstream M&E Models**

Monitoring, as advocated within the mainstream, is based on various presuppositions about human and organisational behaviour. Thirteen presuppositions are identified and then questioned in terms of the consequences for ensuring the type of collective learning needed in emergent change processes. This occurs by a comparison with the monitoring practice of 33 IFAD projects and brings me to query the fundamental logic in mainstream monitoring practice that is prevalent in rural development and resource management. For the type of adaptive behaviour being sought to be likely to occur, participatory forms of monitoring appear promising.

*For this I turn to,*

**5 Participatory M&E and Rural Partnerships in Brazil**

The potential of participatory M&E is perhaps a way to deal with some limitations of mainstream M&E. I also introduce a three year action research process that undertook the design and implementation of a monitoring design and implementation process, based on the ideas embedded in PM&E. The key actors, their background, and the nature of their partnership are explained.

*I illustrate the potential and limitations as evident from:*

**6 Participatory Monitoring in Practice: Insights from Brazil**

Three years of action research in Brazil with NGOs and farmer organisations suggests that collective monitoring requires a more fluid, actor-specific and adaptive approach to learning at multiple levels than is suggested by participatory monitoring theory, which is strongly influenced by mainstream monitoring theory and practice. This

brings me to identify key areas where both mainstream monitoring and participatory monitoring need re-conceptualising.

*Thus, I explore the significance of:*

### **7 Insights from Studies on Cognition and Organisational Learning**

Two bodies of theory offer important insights for improving the mainstream understanding of monitoring. *Cognition* examines how people perceive and react.

*Organisational learning* theory and praxis focuses on understanding how groups of people think, share information and make decisions, i.e. collective monitoring for enhanced performance. From both fields, I select several concepts and explain how they can help shift the mainstream understanding of monitoring

*Reflecting on these theoretical perspectives enables:*

### **8 Monitoring that Nurtures the 'Golden Goose'**

A critical look at subsequent work in Brazil from 2000 to 2007 with one of the Brazilian NGOs describes ongoing evolution of their 'institutional learning' processes. An analysis of advances as well as persistent challenges identify where understanding and practice are still weak, and how these relate to the insights from theory. This brings me to a set of design principles that I argue will deal with the limitations of mainstream approaches to monitoring. If rural resource management is to provide effective inroads for the current eco-social challenges that societies face, then collective monitoring will need to be conceived and concretised in ways that make jointly negotiated and implemented learning processes a feasible proposition.

*In conclusion:*

### **9 Conclusions**

Rural resource management initiatives that recognise the emergent nature of change and the need to undertake action through 'messy' partnerships can only be effective if supported by deliberate strategies for social learning that use the full potential of collective monitoring. A new understanding and practice of monitoring has important implications for key stakeholders: activists, evaluation and facilitation professionals, funding agencies and academia.

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*Chapter 7* outlines contributions from two new theoretical areas that challenge mainstream monitoring. One such theoretical domain is from studies on cognition that seek to understand how people perceive and know. Interesting concepts I discuss are collective cognition, correspondence and coherence, cognitive dissonance, and distributed cognition. The second source of inspiration comes from the organisational learning literature, with its focus on the collective level. I refer to the concepts of multi-ontological sense-making, the 'social life of information', and organisational mindfulness. I discuss four ideas that integrate concepts from these two theoretical areas that can help imagine a different future for monitoring.

In *Chapter 8*, I return to observations of follow-up processes in Brazil with CTA-ZM, one of the NGOs, with which I have continued to work to date on monitoring and organisational learning based on the lessons outlined in *Chapter 6*. Merging these additional empirical insights with the theory from *Chapter 7* brings me to suggest an extended understanding of monitoring based on eight design principles that could make monitoring more effective for messy partnerships engaged in institutional transformation for rural resource management.

I close the thesis with *Chapter 9*, in which I summarise the main arguments of the thesis and discuss the implications of learning-oriented monitoring for key development actors: implementers, facilitators, funding agencies, and academics.

### **1.5 Looking Ahead at the Conclusions**

The environment – natural, organisational and socio-political – constantly gives feedback but it needs to be perceived and interpreted for learning in rural resource management. Monitoring can be viewed as designing and implementing the feedback loops necessary to ensure that collective learning is fed by ongoing information flows within and among members of ‘messy partnerships’ and enables concerted action. However, the tracking of (much) information will not necessarily, in and of itself, lead to learning.

Monitoring is, by and large, described in neither comprehensive nor precise enough terms for implementation as part of rural resource management. Even relatively innovative development discourses that value collective learning and monitoring do not provide adequate practical orientation to ensure the desired ‘learning’. And learning is, itself, couched in too general terms to be operational – it is assumed to happen. The promising potential of more participatory approaches, if based on the same logic as mainstream M&E as is commonly the case, does not provide sufficient innovation.

Insights from my empirical and theoretical forays lead me to suggest that if monitoring in rural resource management is to be based on a central concern for ‘learning’, this means extending the mainstream understanding of monitoring to include other components (see *FIGURES 1-3* and *1-4*) that make it more than data collection based on pre-determined indicators and view it as a sense-making process. Furthermore, the development sector needs to shift from assuming that monitoring should only focus on tracking desired outcomes of ‘projectable changes’ (Reeler 2007), which constitutes an idealistic approach (Kurtz and Snowden 2006:2) that ignores more naturalis-

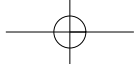
tic cognitive processes that occur in rural resource management.

Learning must be understood as cognition – making sense of the information, revising understandings of how the world works, agreeing on actionable options, ensuring values and decisions are shared, understood and supported. Rural resource management has diverse information needs that need to be accommodated in monitoring systems. In Chapter 8, I describe nine learning purposes to which monitoring can make significant contributions. Each learning purpose determines monitoring in terms of specific time frame, degree of required rigour and formality, link to decision-making, degree of ‘collectiveness’, and depth of analysis. The variety of learning purposes and monitoring processes cannot be addressed through a single M&E system that is based on a programme logic model, as is implied in mainstream monitoring.

When undertaken collectively, the transformation of ‘data’ into timely recommendations for change passes many steps, each of which has the potential to work or to fail: agreement on information needs, collect, collate, comprehend and communicate the information. In the context of concerted action on which this thesis focuses, the people involved in monitoring will inevitably be diverse in terms of interests, capacities and values, and thus negotiation at each step is necessary. But more is needed than simply negotiating the practicalities for effective collective learning through monitoring. It requires investment in social interactions in such a way that information is exchanged in order to construct insights together and reach agreement on next steps, whether these be taken individually or collectively.

Monitoring can contribute to the learning needed in rural development and resource management by approaching it as a collective cognitive process, not as a proposition for an elaborate database. It requires moving from an information-focused interpretation of monitoring, to an acceptance that it encompasses individual perceptions, emotions and behaviour. And individuals must be recognised as enmeshed in relationships of power and identities that shape how they will see, make sense of and use information. Hence, the need to understand how cognition works at a collective level.

Development actors are embedded in contexts with incentives and disincentives for learning. The commitment to learning cannot be assumed to exist (Leeuwis 2002; Guijt *et al.* 2005) nor its intentional character (Kurtz and Snowden 2003). The system of incentives that permeates many rural development initiatives is stacked against the changes required for participatory modes of adaptive resource management. And human actions are quite sim-



ply often accidental. Hence the need for realistic expectations about what an improved understanding of monitoring can resolve.

