

# INSTITUTIONS, PARTICIPATION AND PROTECTED AREA MANAGEMENT IN WESTERN AMAZONIA

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## Introduction

With the world's tropical forest cover, and the associated losses of biodiversity decreasing at alarming rates, there are still very powerful and persuasive arguments to designate large parts of Amazonia as protected areas. The past few decades have witnessed a transition in the approach of protected area implementation, from the traditional, exclusionary 'fortress parks' approach commonly implemented in the 1970s and 80s towards an approach that seeks to directly link biodiversity conservation with local livelihoods. Although some conservationists remain reluctant about the idea of such a linkage, (Terborgh, 1999), many conservationists today believe that unless local livelihoods and conservation are made to be compatible, there is no future for conservation (McNeely and Miller, 1984; Western *et al.*, 1994; Salafsky and Wollenberg, 2000).

Recent years have seen the emergence of "integrated conservation and development programs" (ICDPs) and "community-based conservation" (CBC) projects in many different parts of the world - approaches which seek to link environmental conservation with development. Such projects have prompted much discussion about the implications of the integration of human populations to the objectives of biodiversity preservation (Redclift, 1989; Robinson, 1993; Western *et al.*, 1994). ICDPs and other projects have demonstrated that a range of factors need to be taken into account in order to achieve successful conservation performance<sup>2</sup>. Amongst these, the *participation* of local populations has become recognised as a critical element in determining the success of any conservation or development project (West and Brechin, 1991; Ghai and Vivian, 1992; Wells and Brandon, 1993; Little, 1994; Pimbert and Pretty, 1995; Kothari *et al.*, 1996; Hall, 1997; Warner, 1997). Despite widespread recognition, participation of local populations is a relatively new and foreign notion in conservation circles, and is proving to be more a myth than a local reality. As a result, many protected areas today remain little more than 'parks on paper', with few cases demonstrating effectiveness in preserving biodiversity and in enhancing human welfare.

This paper presents empirical data from the National Reserve of Allpahuayo-Mishana in North-eastern Peru to discuss the importance of participation in protected area design, planning, and management in achieving successful reserve management. The paper examines exactly *what* participation entails, *who* should be involved in the process, and argues that in order for it to be more effectively promoted, institutional conflicts and limitations must be addressed and overcome. This paper highlights the importance of institutions both in promoting participation, and in directly enhancing sustainable management of a protected

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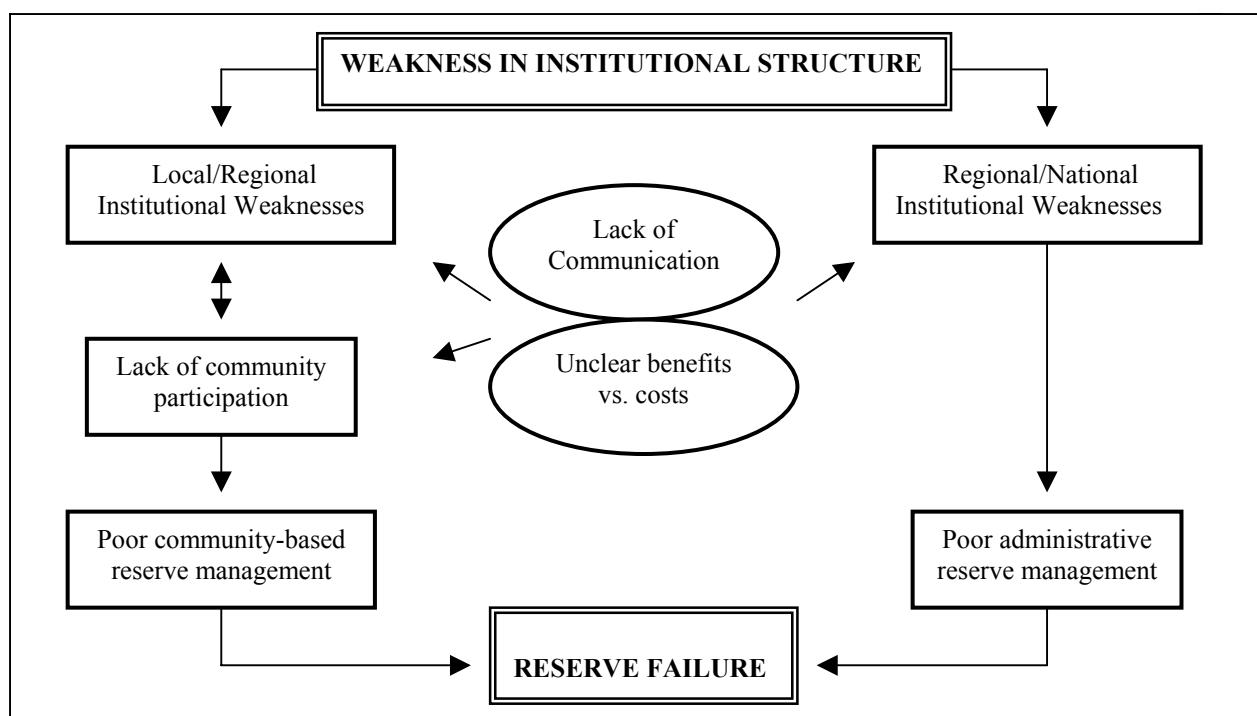
<sup>2</sup> In this paper, the term *conservation* is used in reference to maintaining biodiversity in the long-term at the ecosystem, species and genetic levels. The term applies both to preservation and sustainable use.

area. Institutional arrangements are analysed at the national, regional and local level to diagnose the root causes of current shortcomings in protected area management.

### Contextual framework

To date, most of the literature on protected areas and their management has consisted of descriptive studies, with little written in terms of theoretical, structural and conceptual underpinnings to unify cases. This paper takes an analytical approach following along a line of recent Common Pool Resource (CPR) research that advocates an interdisciplinary and holistic approach to natural resource policy and management analysis (Jentoft, 1997; McKean, 1997; Edwards and Steins, 1999; Steins and Edwards, 1999; Klooster, 2000). It takes into account the wider social, cultural, ecological and economic environment in which the resource system is embedded, and extends beyond the geographical boundaries of the particular resource system. This paper links the notions of participation and institutions and argues their importance in enhancing conservation performance as it is affected both from beyond (by external management initiatives) and within (by community-based management initiatives). Communication at and between all levels, and acknowledging perceptions of costs of versus benefits of various initiatives, are seen as crucial elements throughout the process of reserve design, planning, and management. Diagram 1 illustrates these links.

**Diagram 1: Linking institutions, participation and protected area management**



### Background on study site

The humid tropical forests of the Allpahuayo-Mishana region are internationally known as the most species-rich forests known on our planet (Kalliola and Salo, 1999). The area has been extensively studied by scientists of different specialisms, and there exists exceptionally good knowledge of these ecosystems to certify their high ecological and economic value (Gentry, 1988; Peters *et al.*, 1989). The move for conservation is emphasised by the fact that these rainforests are currently threatened by road construction and accelerating deforestation pressures, due to the area's proximity to the city of Iquitos, a growing Amazonian capital.

The Allpahuao-Mishana reserve is inhabited by six *ribereño*<sup>3</sup> communities whose livelihoods depend on the extraction of natural resources from the forests along with small-scale subsistence agriculture. Although the reserve has been legally established since 1997, the reserve is still in its early stages, and can be labelled a ‘paper park’, with the sustainability in social, economic and ecological terms by no means guaranteed. To date, no benefits or development efforts in connection with the reserve have been directed at the local communities, who have very little in terms of basic needs. Likewise, no projects for economic revenue have been realised in connection to reserve management. In ecological terms, the current rates of forest product extraction, fishing, and hunting is far from sustainable, particularly as outsiders continue to invade the area and deplete it of its natural resources.

Fieldwork for this case study was collected between March 2000 and June 2001. Primary data was collected through a range of sociological research methods. Socio-economic data was collected in all six communities within the reserve. Furthermore, the roles, responsibilities, and power structures of the different organisations and projects were studied, as well as intra- and inter-institutional interfaces. .

### **Background on Participation**

Participation has been around for some time. Elements of participation in development projects can be traced back to the 1950’s and 1960’s, but the concept took on increased importance in the 70s – when disenchantment with large-scale, top-down development programs emerged. Robert Chambers and Norman Uphoff were amongst the development practitioners who led the advocating of local participation in development planning and implementation. An extensive literature on participation in development followed, and today, many well-known international development agencies that serve specific economic or political interests have incorporated participation into their agenda.

While there is extensive literature and history of community involvement in development literature, including much scrutiny and analytical debate around the short-comings of participation, the conservation literature is only just beginning to take on board the notion (Metcalfe, 1994; Ghatak, 1995; Gurung, 1995; Maryani, 1995; Neumann, 1997; Singh *et al.*, 1997). After several decades of managing protected areas from an exclusively ‘protectionist’ perspective which excluded local populations, environmental organisations have finally begun to adopt the notion of participation in conservation and natural resource management. Participation in conservation, and particularly in sustainable forest management initiatives, has emerged under the guise of several terms, including participatory forestry, co-management, joint forest management, social forestry and community-based forest management – all having in common the general notion of community involvement. However, international conservation NGOs still have limited experience in projects targeting poor rural people, and national environmental NGOs also tend to lack experience with participation, as they were initially set up to lobby governments, raise money for the establishment of protected areas, or raise conservation awareness (Pimbert and Pretty, 1995). Many conservation organisations are still searching for appropriate methodologies in their projects that involve communities, and to date, there have been few systematic attempts by conservation organisations to adopt participatory planning methods.

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<sup>3</sup> This is the term commonly used to refer to the mixed-origin or detribalised ethnic groups long established in Amazonia, also known as *mestizos*, or *caboclos*. As defined by (Schminke and Wood, 1987) they are a ‘racially mixed population that grew with the migration to the region during the rubber boom’, as opposed to *indigenous people*, who are the native or tribal population of Amazonia.

### *Defining participation*

One of the underlying reasons for the lack of participation in conservation projects is due to the ambiguity of the term. Participation can be interpreted to mean anything from almost complete outside control, to a form of collective action in which local people set and implement their own agenda in the absence of outside initiators (Carter, 1996). Between these two extremes lie various intermediate levels or degrees of participation. Disaggregating the notion of community participation in terms of major dimensions provides a useful analytical tool for identifying ways in which communities may become directly involved with, and exert a decisive influence upon, the design and management of projects. Table 1 outlines these dimensions.

**Table 1. A typology of participation**

Typology	Components of each type
Passive participation	People participate by being told what is going to happen or what has already happened. It is unilateral announcement by an administration or by project management; people's responses are not taken into account. The information being shared belongs only to external professionals.
Participation in information giving	People participate by answering questions posed by extractive researchers and project managers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research or project design are neither shared nor checked for accuracy.
Participation by consultation	People participate by being consulted, and external agents listen to views. These external agents define both problems and solutions, and may modify these in the light of people's responses. Such a consultative process does not concede any share in decision-making and professionals are under no obligation to take on board people's views.
Participation for material incentives	People participate by providing resources, for example labour, in return for food, cash, or other material incentives. Much in situ research and bio-prospecting falls in this category, as rural people provide the resources but are not involved in the experimentation or the process of learning. It is very common to see this called participation, yet people have no stake in prolonging activities when the incentives end.
Functional participation	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of externally initiated social organisation. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decisions have been made. These institutions tend to be dependent on external initiators and facilitators, but may become self-dependent.
Interactive participation	People participate in joint analysis, which leads to action plans and the formation of new local groups or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. These groups take control over local decisions, and so people have a stake in maintaining structure or practices.
Self-mobilisation	People participate by taking initiatives independent of external institutions to change systems. Such self-initiated mobilisation and collective action may or may not challenge existing inequitable distributions of wealth and power.

(Source: (Pretty, 1994)

There are different views on which level of participation is most appropriate, and it is important that those using participation clarify its specific application. While Pimbert and Pretty (1995) argue that projects should find ways of shifting from the commonly passive, incentive-driven participation towards the more interactive end of the spectrum, others question the reality of community self-mobilisation. They argue that not all local communities possess the organisational skills and technical knowledge to conduct forest management, let alone to initiate projects, as in most instances community-based management projects owe their existence to third-party interventions who have helped with training and finance (Lynch, 1995). Others have highlighted the dangers of these supposedly 'ideal' bottom-up activities as they may lead to inequalities in the community, with complete auto-mobilisation generating conservation activities that favour the powerful locals and prejudice against socially disadvantaged members of the community (Ulfelder and Poats, 1997). Thus, the lack of a universally agreed-upon definition of participation is not only due to differences in scale and interpretation, but also due to fundamental differences in the moral grounds regarding the effectiveness of a particular approach. How, then, are we supposed to

speak of participation, or analyse the use of participatory methods, when we do not have a common understanding of the meaning and use of the word?

Sally Oliphant points out that whether participation is regarded as a means to achieving an end, or as an end in itself, or whether its merely a matter of principle, or of practice, or both, the key question is whether it makes any real difference to those most directly affected by any planned intervention (Oliphant, 1999). In other words, does the participation enable the communities to have their voices heard? Does it enable them to assert their own ideas about what their needs and problems are, what solutions need to be found, and what resources made available? Does it enable the creation of a shared reality or system of meaning among the key players – as they work together in the mutual construction of a project? These questions highlight the key elements that define participation as referred to in this paper.

### *Participation for conservation*

The question arises to what extent participatory efforts enhance, or improve, the possibilities of meeting conservation and the sustainable management of natural resources (Ulfelder and Poats, 1997). Although this is difficult to answer due to lack of necessary ecological data over time, cases world-wide show that no-participation scenarios have resulted in deforestation, poaching and other problems, while community-based conservation approaches have demonstrated that participation can slow rates of resource depletion (Little, 1994). All the evidence points to long-term economic and environmental success only when people's ideas and knowledge are valued, and power is given to them to make decisions independently of external agencies (Pimbert & Pretty, 1995). This argument is supported by the case of Allpahuayo-Mishana where the lack of participation has resulted in poor reserve management by local populations. The following section looks at how and to what extent participation and consultation with local communities was incorporated into the planning process and creation of the reserve, and presents views both from the communities and external organisations involved.

### **The process of creating a reserve: The story of Allpahuayo-Mishana**

The Allpahuayo-Mishana National Reserve (hereafter referred to as AMNR) was officially established on March 4<sup>th</sup>, 1997. The commission in charge of the reserve was composed of three State bodies: the National Institute for Natural Resources (INRENA), the Institute of Investigations on the Peruvian Amazon (IIAP) and the Transitory Council of the Regional Administration of Loreto (CTAR-L). Although AMNR involves an array of different stakeholders, rural and urban, public and private, this paper examines the notion of participation only as applied to the six communities inhabiting the reserve. The following research questions were posed to analyse the level of participation of local communities during reserve creation:

- How, and by whom, was the problem defined prior to reserve establishment?
- When and how did communities find out about the reserve?
- Was there any consultation? If so, in what form, and with whom?
- To what degree have the communities been involved in decision-making and in the preparation of the management plan for the reserve?
- To what degree has there been information dissemination to, and communication with, the communities?

### *Defining the problem*

The extent to which the local population shares in problem definition and participates in its identification is a prime factor affecting program success (Little, 1994). This is especially pertinent in biodiversity conservation programs where most debate around the subject takes

place in the North. Defining the problem not only means eliciting dialogue, but also translating the problem (in this case the loss of biodiversity) into terms or situations that have relevance to the local community. The AMNR case illustrates a clear lack of local community participation in the definition of environmental problems and priorities. The problem of biodiversity loss was raised by international and national biologists, and decisions regarding what, where and how to conserve were made by external scientists, with no participation, consultation or input from local inhabitants, despite the fact that local residents have both the most stake in, and much information about, natural resources in the area (Uphoff, 1992).

### *Informing communities*

Anthony Hall emphasises the importance of timing when involving communities in projects, stating that communities should become involved early on in the project phase, at the time of identification and appraisal, when the conservation strategy is being conceived, and before any major decisions have been taken or basic parameters set (Hall, 1997). In the case of AMNR, the timing and informing of local communities about the reserve varied from community to community, and from household to household, but in general, local inhabitants heard about the reserve only after it had been legally established, and in most cases through word of mouth, rather than directly from the reserve officials.

### *Initial reactions*

In early 1999, two years after the reserve had been legally established, biologists visited the local communities living within its boundaries. News had already spread in the regions about the reserve, along with rumours claiming that local populations were going to be kicked out. The main purpose of these visits was to obtain information on the flora and fauna of the reserve - information needed for the AMNR management plan (pers. com.). The visits primarily involved taking measurements, doing inventories, noting down and mapping physical and ecological characteristics. One community member recalls back on these visits, saying:

*“many scientists passed by here, but they didn’t speak with us. They didn’t let us know where they were going, what they were working on. ...”* – informant from San Martin

Later in the same year, the biologists returned to inform the local inhabitants that the area had been designated a *reserved zone*<sup>4</sup> under national government legislation. The communities were told that from then on it was prohibited to clear more forest for agriculture, extract timber and palm thatch, hunt and fish for other than subsistence use.<sup>5</sup> Some households left the reserve in response to these rules, in search for land where they could work free from restrictions, but most inhabitants stayed behind. The majority of community members commented on the fact that their livelihoods depended on the natural resources of the area, and they could not conceive living under the imposed restrictions. In some cases, people began to extract more resources than before, in response to the imposed restrictions:

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<sup>4</sup> This was the initial categorisation of the Allpahuayo-Mishana reserve before it was eventually designated a *National Reserve* in May 2001.

<sup>5</sup> These were the original restrictions placed on the communities, but in response to protests by the communities, the reserve officials realised that the regulations were unrealistic. The rules were then ‘softened’ to allow minimal extraction, but purely for subsistence, not commercial, use. However, the rules remained ambiguous, with communities left uncertain and confused as to what the actual limits on extraction were.

*“despite the fact that people in the reserve have been told that they can only extract so much of this and that and that they have to protect, in reality what is happening is that since the reserve was created, people are only extracting more”* – informant from Yuto

While this logic of free-riding<sup>6</sup> was observed in some cases, the large majority of inhabitants continued extracting and harvesting as before, with no significant increase or decrease in quantity.

### *Consultation Workshops*

In the end of 1999, two “Participatory Consultation Workshops” were organised in Iquitos by the Technical Commission in charge of providing ground-level information for the definite delimitation and categorisation of the reserve. According to the commission, “all the relevant social stakeholders took part” (IIAP, 2001), although this is debatable.<sup>7</sup> Those who were represented in the workshops included:

- five of the six communities within the reserve<sup>8</sup> (2 representatives from each)
- the settlements along the Iquitos-Nauta road bordering the reserve (one representative from each)
- private landowners
- institutions (NGOs and government), and
- public and private bodies with interests in the area

The workshops were criticised by several community representatives for being top-down, uninformative and far from consultative:

*“Two people were invited as delegates representing the community to a workshop, organised by INRENA to inform [the delegates] that the Reserve had already been created by law of the government, and that we were inside the district and that they had made documents that only the representatives of the community signed as an ‘acceptance’, without knowing it - and without even understanding the details.”* - informant from 15 de Abril

The workshops were also criticised by representatives of institutions who participated, for having a fixed agenda without prior consultation with the communities:

*“I think the consensus was very forced. There is a kind of social censorship, when one is not a conservationist. In the workshop, many of the representatives [of the communities] were not very convinced. They didn’t talk, they were scared that they would be censured. They could have gone about it in another way... for instance start talking together with the people about conservation... so that it also comes from them”* - informant from IIAP

Finally, the workshops were criticised for their style and content, as they consisted largely of formal speeches from the directors of various institutions, followed by detailed scientific presentations regarding the biology, ecology and geology of the reserve:

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<sup>6</sup> A free-rider is an individual who chooses to receive a higher payoff for a socially defecting choice rather than for a co-operative choice, even if all individuals get a higher payoff if they all co-operate (Olson, 1965; Hardin, 1968).

<sup>7</sup> Representatives from communities living on the opposite bank of the Nanay river, which borders AMNR, as well as fishermen, loggers, logging companies, and other extractivists from Iquitos, all of whom have long been harvesting resources from the area, were not invited to participate.

<sup>8</sup> At this stage, due to errors by reserve officials in the mapping of AMNR, the community of Anguilla was still thought to be outside the reserve. More than a year later it was realised that Anguilla was actually located within the boundaries of the reserve.

*“You cannot sit them down, the representatives of the communities, and tell them that there are x number of birds, x number of animals... What was missing was a good social study from the very start. There was nobody speaking in support of the communities. There were biologists, ... only scientists.”* – informant from IIAP

Clearly, the consultation workshops were set by the officials in charge of reserve creation and management, with an agenda consisting of *their* questions, *their* concerns and *their* priorities.

#### *Who participated?*

A fundamental question to ask when analysing participatory methods is: *who* participates? Due to the short notice, not all the inhabitants of the communities in AMNR participated in the initial community meetings, where biologists first announced the reserve. In the consultation workshops, only two representatives from each community participated. This raises a gender issue, for all the community representatives attending the workshops were men. Particularly in cases like AMNR, where there is heterogeneity, both between households and between communities, it is fundamental that there is wide participation to acknowledge different interests, for negotiated consensus may be limited to certain members of the community, such as the political leaders.

#### *Assessing participation*

In assessing the overall degree of participation of local communities in the planning process and creation of AMNR, it is evident that participation only took place at the lowest three ‘typologies’ illustrated in Table 1. During the entire period prior to and after the legal establishment of the reserve, the only efforts on behalf of reserve officials to participate the communities, apart from the initial visits and meetings held at each community to inform them of the reserve, were the consultation workshops held in Iquitos. These effort, according to Table 1, can be categorised as *passive participation, information giving, and limited consultation*. As one project worker in Iquitos commented:

*“Participation – there is a great lack of it here. It’s that [the project officials] see it as something very technical – that you have to have a workshop to which you invite some local people to talk, and there, then you can ‘tick it off’, as if you’ve done the participation.”*

– informant from SNV, a Dutch consultancy

Although participatory terminology was incorporated into the project plans and the reserve proposal, participation remained more a word on paper, rather than actual practice.

#### **Linking participation and institutional weaknesses**

This paper argues that institutional weaknesses constitute a fundamental reason for the lack of participation and general failure in reserve management. At the regional level, the failure of organisations and project workers to come to terms with not only a commonly understood definition of participation, but also with how to incorporate it into reserve management, explains the lack of participatory methods used. This in turn is a result of more fundamental institutional weaknesses relating to inter-organisational relationships, communication, and decision-making. At the community level, the lack of local institutions, such as effective social organisation, limit the communities’ capacity to take initiative, auto-mobilise, and organise a ‘bottom-up’ approach to reserve management. The effects work in full circle, for stronger institutions would promote more participation, while participation of local communities can also significantly promote the development of certain community-level

institutions, such as achieving good governance by promoting transparency, accountability and the representation of a diversity of interests (DFID, 1999). The following sections analyse the institutional framework surrounding AMNR.

### **Background on Institutions**

Sustainable forest management is an arena that attracts many different disciplines, professionals, scholars and practitioners working at different levels and with different issues, thus requiring collaboration and co-operation. While the biophysical, reserve-level science and the policy-level legislation has generally been taken into account when designing management plans, the organisational structure and behaviour of institutions at all levels tends to be poorly understood and ignored. With the need for collaborative approaches, it is all the more important to examine the administrative and institutional challenges surrounding sustainable forest management. Analysing institutional arrangements involves looking at the relationships between the institutions involved in some type of common endeavour (Imperial, 1999). Institutional analysis provides a richer approach to understanding the dynamic of natural resource struggles that affects rule formation but also influences the creation and maintenance of community norms and values.

#### *Defining institutions*

Recent literature has seen a number of different definitions and applications used for the word ‘institution’. Particularly the interchanging use of ‘institution’ and ‘organisation’ has contributed to ambiguity and confusion. In this paper, I speak of institutions as *including* organisations, with institutions defined as:

*“an enduring regularity of human action structured by rules, norms or shared strategies and the realities of the physical and biological world. Institutions include families, churches, government agencies and most organisations since they are frequently defined in terms of rules, norms or shared strategies”* (Imperial, 1999).

When not spoken of as ‘organisations’, institutions are often defined as ‘the rules of the game’; that is, the constraints, restrictive or enabling, that direct human behaviour in social, political and economic exchange. Organisations, on the other hand, are the players whose behaviour is governed by these rules that, with their respective enforcement characteristics, create a set of incentives that guide human behaviour (North, 1990).

#### *Rules*

What differentiates institutional analysis from other forms of organisational analysis is the focus on *rules*. These rules can be formal or informal:

Formal rules are the written instruments that provide a legally enforceable framework for the economic, political, and social activities of a society (James, 2001). These include statutes, laws, policies, regulations, zoning ordinances, and permit decisions. Formal rules can also be the written specification of property rights, for example the property rights to natural resources and the statutes and contracts that render them legally enforceable. Institutional theory suggests that a country’s formal protected area institutions should be well defined, appropriate, and enforceable (North, 1990). This requires comprehensive conservation legislation, transparent government policies, and highly specified property rights arrangement and contracts.

In addition to the formal structure of laws, government policies and property rights, every country and society has an equally important parallel system of unwritten rules that govern everyday human behaviour. These are the unwritten rules of ‘informal institutions’. These can be cultural and behavioural norms, mores, traditions, rules governing organisational relationships, and co-ordination processes. A society’s informal rules can, for instance, dictate what is appropriate or expected behaviour in the society. Such institutions can in fact be more influential than a country’s formal rules, as they are deeply embedded in customs and represent and accumulation of social convention (James, 2001).

The relationship between formal and informal institutions is interactive. Informal institutions are particularly important for instance in determining the level of enforcement of, and voluntary compliance with formal conservation institutions. Informal institutions that reward personal accountability, personal initiative and decentralised decision-making can also foster good management performance. In some rare cases, a country’s informal institutions alone may provide an adequate basis for good conservation outcomes, but normally, a written structure of rules is necessary that, if complied with, indicates *inter alia* a respect for the rule of law and adequate enforcement (James, 2001).

#### *Institutions and Common Property Regimes*

A number of authors have presented empirical evidence demonstrating how institutional arrangements provide the means to avoid Hardin’s (1968) ‘tragedy of the commons’ by resolving collective action and common pool<sup>9</sup> resource problems (McCay and Acheson, 1987; Berkes *et al.*, 1989; Feeny *et al.*, 1990; Ostrom, 1990; Bromley *et al.*, 1992). Under certain conditions, multiple resource users can design and enforce rules that govern their individual and collective choices and facilitate the sustainable management of resources. While Hardin believed that the logic of individual rationality led to the tragedy of the commons, common property theorists have since identified the difference between open access and a common property regime, where internally-enforced rules, or *social institutions*, harness individual rationality to the collective good (Ciriacy-Wantrup and Bishop, 1975; Bromley and Cernea, 1989; Bromley *et al.*, 1992; Simmons and Schwartz-Shea, 1993). Collective action processes, however, go hand-in-hand with the free-rider problem. Common property theorists, however, argue that free-riding is not always the dominant rational strategy; rather, there can be institutions that help balance behaviour and make co-operation a rational strategy (Runge, 1984).

The following sections question to what extent institutions and institutional arrangements work to support and encourage local participation and sustainable forest management in the Allpahuayo-Mishana reserve. The relevant institutions, outlined in Table 2, are examined at the national, regional, and local levels.

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<sup>9</sup> To distinguish between common *pool* resource and common *property* resource regimes, common property resources form a subset of common pool resources, being ‘resources to which specified property rights for common usage are attached’ (Edwards and Steins, 1999)

**Table 2: Institutional weaknesses at national, regional and local levels affecting the management of Allpahuayo-Mishana National Reserve**

Level	Weakness	Characteristics	Comments from communities and organisations	Consequences
National	Centralised system	- decision-making takes places in Lima	<i>"In the case of INRENA, it is very clear. The office here in Iquitos can not make any decision without consulting with Lima. And as INRENA is in charge of everything that regards monitoring, control, vigilance ... of the reserve... in the end, everything takes a long time." – informant from IIAP "Sometimes the proposals don't pass because of certain interests up there" – informant from CTAR</i>	<ul style="list-style-type: none"> <li>- delays</li> <li>- inefficiency</li> <li>- difficulty in planning and progress of reserve</li> <li>- difficulty in taking initiative at regional level</li> </ul>
	Political instability	- constant changing of personnel - no long term plans	<i>"the national politics has done a lot of harm to the institutions, both at national and regional level"</i> - informant from SNV <i>"the administrative politics is chaotic, and very slow"- informant from AECI</i>	
	Policies not supportive of conservation	- little government support/ lack of resources	<i>"It's a disaster. We are ten years behind [in the conservation scene]. If it weren't for those from abroad, GEF, World Bank, and others, this government would be very little involved in ecological aspects."</i> - Informant from the Regional Municipality's Environment Office	
Regional	Weak inter-organisational relationships	lack of: - communication - information sharing - co-ordination - collaboration	<i>"There is an institutional weakness. It's a cultural thing. There are jealousies. There are public agendas, and then there are hidden agendas, and each one manages their own language. There is a lack of willingness – that is why there is no forum, there is no compromise. Too many conflicts: personal, money-driven, the state... everything criss-crosses. And it gets very personalised."</i> - informant from the Human Rights Watch Defensoria del Pueblo	<ul style="list-style-type: none"> <li>- delays</li> <li>- inefficiency</li> <li>- poor information</li> <li>- conflicts</li> <li>- failure to come to consensus</li> </ul>
	Power imbalances	- between state and non-state institutions - undemocratic decision-making	<i>"some institutions sometimes misunderstand – that when INRENA gives responsibility to others, they think they can do whatever they want" – informant from INRENA</i>	
	Problems of fit (Inter- and intra-organisational)	differences in: - goals - vision - views and definitions	<i>"There have been major conflicts between those of conservation and those of development.... and due to the lack of co-ordination. Even within the same sector there have been conflicts" – informant from SNV "Some institutions that focus on research, they think more in the biological aspect, and not so much in the social, like IIAP, for instance" – informant from INRENA</i>	
Local	Poor governance	- ineffective community authorities - corruption - lack of sanctions	<i>"Our authorities do not protect us because they are not interested in our problems. They only do justice when it's in their own interest. This is worrying for us." – informant from community of Anguilla "There are people in the community that want to sustainably manage, others that don't so what can we do? Change our authorities." – informant from community Yuto</i>	<ul style="list-style-type: none"> <li>- poor control against invaders</li> <li>- persistence of intra- and inter-community conflicts</li> <li>- lack of rules</li> <li>- non-compliance with existing rules</li> <li>- insecurity</li> <li>- uncertainty</li> <li>- short-term thinking</li> </ul>
	Poor social organisation	weaknesses in: - decision-making - resource mobilisation and management - communication - conflict management	<i>"what we are looking for are certain criteria of organisation so that united we can have more strength in defending our rights." – informant from Anguilla "the whole community want to create a new system of communal organisation" – informant from San Martin "when there is no on that 'alerts' us or tells us off, then we continue extracting" – informant from community of 15 de Abril</i>	
	Undefined property rights	- no legal recognition of rights to land or of community territory	<i>"We can be vigilants, if we have our land title. But the problem is that we don't have our land demarcated. If we feel they are in our territory, we can catch them. But if we are not sure whether they are inside, we can't" – informant from community of Anguilla</i>	

### *National level institutions*

A highly relevant and influential characteristic of the policy context in which AMNR is situated is the centralised nature of the institutional structure in Peru. Particularly in the case of environmental state organisations, most of the decision-making takes place in the capital city of Lima, with little or no decision-making power held by regional offices. Several organisations involved in the planning and management of AMNR complained that this centralised system, along with the general political instability of the country, were the main reasons for causing delays in reserve implementation and management. This is a commonly reported drawback to protected area management: the centralised government and large bureaucracies tend to increase transaction costs and the rigid, centralised attempts to manage ecosystems often lead to their collapse (Ostrom, 1990; Holling, 1995). Furthermore, as in most developing countries, the dominant political and economic conditions in Peru are not supportive of conservation and sustainable development initiatives, making reserve progress all the more challenging at the regional and local level.

### *Regional level institutions*

In addition to the fundamental and difficult challenges at the policy level, there are several institutional weaknesses at the regional level which are hindering local participation and effective reserve management. Over 20 institutions, based in the city of Iquitos, are involved in the planning and management of AMNR.<sup>10</sup> The relationships between institutions involved in the management of AMNR, as well as between institutions working on environment-development related issues, are weak. Informants from these institutions complained about the general lack of communication, information sharing, co-ordination, and collaboration between institutions. This has not only added to the delay and inefficiency in reserve planning and management, but has also led to conflicts between institutions and personnel (*pers. obs.*). In addition, there is an evident imbalance of power between certain institutions, particularly between state and non-state, and national and local institutions, further affecting relationships and decision-making. Perhaps the greatest hindrance to local participation and sustainable reserve management from the regional level has come from what Rosendo and Brown call ‘problems of fit’, both within and between institutions. It is often assumed that institutions and actors involved in (strategic) alliances and coalitions have mutual interests and goals – however they may in fact only be a mutual means of achieving quite different objectives (Brown and Rosendo, 1998). Differences have been particularly noticeable in the goals (conservation versus development-oriented; research versus aid priorities, etc.) and vision (short-term versus long-term thinking and planning) between institutions. Perhaps the most controversial ‘problems of fit’ between stakeholders has been the differences in opinion regarding formal land entitlement (property rights) being given to the communities within the reserve, and the degree to which communities should be allowed to ‘participate’ in decision-making regarding the reserve. These institutional weaknesses make it all the more difficult to reach consensus between stakeholders on reserve management.

### *Community level institutions*

The disappointing results of natural resource conservation policy in developing countries over the past few decades have led researchers and practitioners to shift their focus away from state-centred policies - which are limited in their effectiveness to mobilise information, and efficiently enforce and support or sanction resource use behaviour - towards solutions at the local level (McCay and Acheson, 1987; Hecht and Cockburn, 1990; Ostrom, 1990; Blockhus *et al.*, 1992; Bromley *et al.*, 1992; Ascher, 1995; Becker and Gibson, 1996). There

<sup>10</sup> These include government institutions, multilateral organisations and projects, environment and development NGOs, (international and grassroots), and coalitions of organisations.

are several asserted conditions believed necessary for successful natural resource management by local people (Becker and Gibson, 1996). One of these requirements is that local communities have the ability to create institutions to regulate the use of their natural resources (Ostrom, 1990; Bromley *et al.*, 1992; Becker and Gibson, 1996). Local institutional arrangements have been shown to be more effective in providing, *inter alia*, rules related to access, harvesting, and management – allowing faster, cheaper and more effective response to conflict, monitoring and sanctioning methods (Becker and Gibson, 1996).

In examining community level institutions in AMNR, key research questions included the following:

- What rules, norms and regulations govern the use of forest resources?
- How are communities structured and organised as an entity, and in terms of their governance?
- What property rights currently exist in the reserve, and what significance do these have in terms of successful management?

#### *Existing institutions in AMNR*

The communities within AMNR consist of colonists that, despite originally having come from different locations, have over the decades acquired a set of informal social controls. Over the years, the colonists have had to co-operate in the construction of basic infrastructure in their settlements, such as the construction and maintenance of schools, bridges, and trails. These activities have forged bonds of friendship and mutual aid that discourage inter-community conflicts over issues such as land ownership. The prospect of having to deal with one another over a long period of time has induced some level of co-operation and has to some extent (although limited) dissuaded neighbouring landowners from invading or encroaching on their property.

Each community has two elected leaders who regularly chair community meetings, or *asambleas*, to which all community members are invited to take part, and sometimes collectively make decisions through majority votes. From personal observation, these meetings rarely have full attendance, particularly from women. The only community committees existing relate to child care, education, and sanitation, with no formal co-operatives, associations, or other organisations relating to conservation, sustainable natural resource management, and user rights. Prior to the reserve, there were no rules in the communities regarding the quantity of forest use, and only few rules regarding extraction methods<sup>11</sup>. However, some communities have since reserve establishment made small attempts to control the flow of products leaving their territory through the imposition of a tax. Community members must pay a tax on all the timber, palm thatch, and game meat leaving their community (for commercial purposes). However, in most cases, the tax has been only loosely enforced, and seems to have no effect on quantities extracted. Thus, the levels of exploitation continue to be far from sustainable, and although it is generally disapproved of when individuals extract large amounts of common pool resources, particularly timber, there are no community-enforced sanctions, and governance related to non-compliance is poor.

With the establishment of the reserve, several restrictions on forest resource extraction, should, in theory, cut down on unsustainable extractive activities. However, local communities have to date disregarded the law, easily, as the government has not employed any forest guards or set up vigilance posts. Despite efforts on behalf of the communities to

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<sup>11</sup> All communities have relatively effective informal rules on methods of collecting palm thatch and fishing methods, so as to retain sustainable stocks for the future.

prevent incursion from outside invaders, communities have few efficacious enforcement mechanisms to protect their area. The main factors that seem to be limiting community control against outsiders are the lack of well-defined property rights, effective governance, and social organisation. The weaknesses observed in these local institutions make community-based sustainable resource management as well as any bottom-up approaches to participation in projects difficult.

#### *Undefined property rights*

A commonly accepted criteria for successful institutional development is that property rights be devolved to those individuals who use the resource. Property rights are defined as:

“social institutions that have evolved as a means of establishing claims to a stream of benefits that might be derived from a resource system. A resource system with property rights attached to it indicates the intention for some party to ensure that potential users observe any predetermined restrictions or prohibitions concerning access to and use of the resource” (Steins and Edwards, 1999).

The influence of property rights on conservation outcomes is discussed in numerous publications (West and Brechin, 1991; Lusigi, 1992; Matowanyika *et al.*, 1992; McNeely, 1994). Protected area management is challenged when the property rights to land and resources within the reserve are poorly defined, monitored, and enforced, resulting in open access. The lack of formally specified property rights, poorly defined rights, conflicting rights claims, or insecurity of tenure can all lead to degradation and overexploitation of natural resources. On the other hand, where local communities have been granted secure usufruct rights over forests, clear reversals have been witnessed in forest degradation and associated losses of biodiversity (Fortmann and Bruce, 1988).

It is debatable as to exactly which ‘bundle of property rights’ is most efficient for the sustainable use of natural resources, but it is generally agreed that locals should have some stake in the resource relating to access, use, and the exclusion of others (Demsetz, 1967; Libecap, 1989; North, 1990; Ascher, 1995; Becker and Gibson, 1996). Often communal ownership of land, rather than private ownership, is a more culturally appropriate option (Bromley and Cernea, 1989). In ‘pure’ common property situations, the rights to the resource are shared co-equally and are exclusive to a well-defined set of people (Singh, 1994).

In the AMNR case, only one of the communities, Anguilla, holds a communal land title, and is thus officially recognised as a ‘community’; the other five communities are referred to as ‘settlements’, where only some households and individuals hold fully documented titles to land from before reserve establishment<sup>12</sup>. However, each community has designated landholdings to its members, primarily for swidden-fallow use, and informal social controls among the communities of landholders govern how they treat each other’s private property. In addition to these private ‘rights’, the communities have what they consider their communal territory, which extends beyond the individual landholdings into the surrounding forest, where the communities hunt, fish, extract timber, and non-timber forest products. Although the community territories have never been legally established on paper (with the exception of the community of Anguilla), the communities within the reserve are aware of their

<sup>12</sup> Although a contentious political issue, as in many developing countries, Peru’s central government considers “unoccupied” forest areas to be public land, but does not enforce its ownership of public lands, so colonists have been able to occupy a portion of the public domain and file a claim to become owners of the land.

boundaries, and to a certain extent respect them. The main problem is keeping outsiders from invading the reserve and illegally extracting products.

Having lived in the area for several decades, the communities of AMNR regard the land as their own property, with ‘acquired rights’ of use of resources:

*“The people here feel they are owners of these soils, and feel that whatever the government does with these lands, they should be consulted. The people who are the oldest here, the founders, they feel mortified. They feel that they have lost something, that something has been taken away from them.”* – informant from Yuto

The situation is thus one of undefined property rights stemming from the imposition of formal institutions (rules and regulations) from a different institutional context (the formal reserve institutions) which has led to confusion and conflicting rights claims. The confusion and conflict stems not only from the currently ‘state-owned’ reserve being imposed on top of some previously legally recognised land entitlements, but also from conflicts between what is *perceived* and what is *legally recognised* as being community property rights. Although the communities have rights of access to resources, they are fighting for their ancestral land claims to be legally recognised in order for them to have more effective control over the natural resources. Without secure land rights, communities will not only have no means of keeping outsiders from invading, but they themselves will consider the protected area as lost village resources that are not worth caring for in the long-term. In the absence of recognised property rights, informal controls can prevent some deforestation (Rudel, 1995). However, in cases like AMNR, where communities are left unprotected by informal social controls, and where several households are marginalised, the extension of some form (preferably communal) property rights could produce significant declines in rates of deforestation (Rudel, 1995).

#### *Poor social organisation*

In order to create and maintain strong institutions, a community needs to have social organisation. (Cerneia, 1987). Social organisation can be seen to consist of four basic categories of organisational activity: *decision-making, resource mobilisation and management, communication, and conflict management* (Uphoff, 1992). As mentioned above, the communities do possess some fairly effective institutions, but few relate to resource mobilisation and management. There are, for instance, no sanctions to deter the abuse of common property. Although the communities are loosely structured in that no corporate groups exist and people’s social networks – such as distant kinship, neighbours, friends – still form a constraint to execute the rules (Steins and Edwards, 1999), all the communities seemed to be lacking internal communication between households. Furthermore, rivalry was witnessed in several cases among extended families, often due to economic interests in timber cutting, or conflicts in resource harvesting, which demonstrates a further weakness in the political organisation and its capacity to resolve internal conflicts.

#### *Poor governance*

Key characteristic of good governance are transparency, accountability and the representation of a diversity of interests (DFID, 1999). In some of the communities studied, community members expressed deep dissatisfaction with their current leaders, reporting corruption, lack of communication and community consultation, and general inefficiency of leaders. In some communities, leaders were, for instance, accepting bribes from outsiders to allow illegal extraction of timber and palm thatch from community territory, without consultation with the

community. In other cases community authorities were believed to be using tax-collected money for their own needs. The most common complaints however, regarded the lack of control and sanctions used by community authorities, both against outside invaders, and against community members who were seen to be over-harvesting resources. Furthermore, generally little or no effort was made by community leaders to resolve intra- and inter-community conflicts.

### **Linking institutions and protected area management**

The institutional weaknesses mentioned above all affect reserve management in one way or the other, either from ‘above’ – in the national and regional administration and implementation aspect of reserve management; or from ‘below’ – in terms of community-based management. As outlined in Table 2, institutional weaknesses at the regional and national levels resulted in delays, inefficiency, lack of information, conflicts, and inability to reach consensus – all of which mean that little, if any, progress was made in implementation of AMNR. Currently there is no external support for management, due to the outside institutions failing to meet both conservation initiatives (such as providing vigilant posts, park guards, etc.) and meeting local livelihood needs (i.e. setting up development projects, economic alternative schemes, etc). At the community level, the institutional weaknesses result in: a) the general lack of rules, and non-compliance of existing rules, that favour sustainable natural resource management and conservation; and b) the lack of control against outside invaders. These, in turn, result in the continued extraction of increasingly scarce forest products in unsustainable rates and using destructive methods, both by community members and outsiders.

## **Discussion**

The central argument of this paper is that institutional limitations and conflicts have resulted in the lack of local participation and effective reserve management. In addition to institutional weaknesses, and as shown in Diagram 1, there are key elements that affect not only the effectiveness of institutions at all levels, but also the level of local participation: these are *communication* and *perceived benefits versus costs*.

### *Communication*

As argued above, Hardin’s (1968) ‘tragedy of the commons’ and the ‘collective action’ problems identified by Olson (1965) can be overcome through proper institutional design. However, capacities to overcome these problems are limited when individuals have no expectation of mutual trust and no means of building trust through communication and continued interactions (Ostrom *et al.*, 1994). Communication is essential to participation, for only if the voices of stakeholders are heard, the existing knowledge gathered, and the approaches to reserve management adapted on the basis of learning, can participatory forest management work. Developing effective communication systems, although challenging, is much needed. In AMNR, not only do institutions and communities not share the same frames of reference, but they use disparate language and knowledge bases, and frequently aspire to different agendas. Therefore, information from reserve officials must not only be the right *type*, but also be available at the right *time*, and in the right *form* (DFID, 1999). In developing a structured and flexible information system, it is crucial that communication takes places in a constant two-way flow, and that information dissemination takes into account the human, social and organisational dimensions – with systems not just being about the data (the ends) but more focused on the means; that is, the process and its context (DFID, 1999).

### *Benefits versus costs*

Conservationists have often tended to simplify situations and reasons for actions by paying little attention to the social construction of environmental problems (Steins and Edwards, 1999). Environmental perception is, however, an active social process: communities justify their actions not only in terms of income potential, livelihood rights and environmental values, but also in terms of legitimacy, justice, and group identity (Klooster, 2000). *Institutional choice*, in contrast with “thinner” rational choice models, realises that incentives shaping individual choices are exceedingly complex. In questioning what kinds of rules are necessary, and under what conditions groups of people are likely to make these rules and follow them, Klooster emphasises the notion of rational individuals making cost-benefit analyses of whether to invest in processes of institutional change (Klooster, 2000).

Local resource users will base their decision to co-operate or defect not only on the expected social and economic costs and benefits generated by the common property regime, but will also consider the expected costs and benefits from opting for alternatives (Steins and Edwards, 1999). The communities of AMNR have long used the forest intensively and depended on its products for a significant portion of their incomes. Due to a lack of information, they know of few available economic alternatives. The communities might know that their use is unsustainable, but their preference is to continue extracting without restriction while the resources still exist. This choice is a complex interaction of several perceived costs and benefits. Although management institutions would offer the possibility for sustainable forest use and product flows, which would secure a more long-term supply of forest products to individuals, the creation of institutions to protect natural resources entails costs (Becker and Gibson, 1996). It is costly for a community to reach agreement about what rules should regulate forest use, and to structure monitoring efforts that ensure these rules are not broken, and also to resolve disputes that will arise when rules are broken. Only if a community perceives significant benefits from forestry management to cover these costs will they desire and contribute to the creation of institutions to regulate the forest’s use. In the creation of AMNR, communities were given little, if any information, regarding the benefits of a managed forest as opposed to the costs involved.

These institutional choices based on perceptions of costs and benefits can likewise be seen at the organisational, extra-reserve level, where there are costs associated to institutional development. Even though changing institutional arrangements and improving inter-agency collaboration may improve the management of a reserve, there are often greater incentives not to co-operate, share information, or develop consistent policies (Imperial, 1999). Unless agency officials perceive that there are benefits associated with these costs, co-ordination efforts are likely to meet resistance.

### **Conclusions**

Throughout the world, poor protected area management significantly compromises biodiversity, ecosystem services, livelihoods, and all the other values associated with protected areas. In many developing countries, poor management persists regardless of substantial financial assistance and expert advice designed to improve conservation outcomes. This enduring concern calls for a more thorough theoretical understanding of the persisting failures in meeting protected area objectives.

Understanding successes and failures in conservation is more complex than simply looking at individual project designs. Instead, the local project needs to be considered as part of a larger system of structured possibilities, within a politically charged framework. Institutional

analysis provides a tool for examining the numerous variables influencing stakeholder behaviour and for understanding the relationship between these variables, to one another, and to management outcomes.

One of the primary requirements for successful conservation performance in protected areas inhabiting people is that local populations participate in the creation, planning, and management of the reserve. The case of the Allpahuayo-Mishana National Reserve demonstrates, that participation can not be conjured up or created artificially, as it is a feeling on the part of the people, not just the externally enforced mechanical act of being called in to take part in discussions. This calls for a fundamental shift in the approach to conservation and participation of local populations. Effective participation requires an effort both from external protected area stakeholders, and from the communities themselves.

Institutional limitations and conflicts at the national, regional and local levels hindered the participation of local populations and has resulted in overall failure in the management of its natural resources. At the national level, the drawbacks concern the general policy context, which currently fails to support regional initiatives and bottom-up approaches for conservation. At the regional level, the institutional weaknesses consist of poor inter-organisational relationships and misfits that limit co-ordination and collaboration between stakeholders, adding delay and difficulty to the process of reserve implementation. At the community level, the main institutional weaknesses hindering auto-mobilisation and institutional development for sustainable management of natural resources relate to the social organisation and governance of communities, as well the currently undefined property rights.

The challenges that external stakeholders face in recognising, defining, and agreeing upon participatory methods in protected area management are many. The behaviour of protected area stakeholders is an interaction of a complex and multi-layered institutional environment that requires a collaborative relationship - which can only work in the long term if the terms of reference are clearly defined and agreed on. This requires the conscious effort on behalf of actors to balance power and negotiating skills, and calls for institutional changes in the policy context. The challenge lies in designing appropriate institutional mechanisms that encourage the spread of participatory methods, with directors and board members of public, NGO and private sector conservation organisations radically restructuring procedures and working relationships both within and between organisations. Furthermore, project staff should be trained in communication skills and learn to work closely with colleagues from different disciplines or sectors, as well as with rural people – including women and children.

While the communities within AMNR face considerable challenges in achieving successful community-based conservation, the few institutional assets that communities do have will be valuable to any attempt to construct a local solution. In any attempts to work towards more participatory and community-based management, it is important to recognise existing institutions and work co-operatively with them where possible, in order to build on what exists. Local people will be willing to engage only if there is sufficient information, communication and trust, and only if activities are appreciated and perceived to be beneficial, and as long as decisions are not imposed from outside.

Local institutional development for community-based conservation has received little systematic attention in previous literature. If protected area management is to be sustainable, then researchers, practitioners, and conservationists must pay closer attention to the architecture and performance of institutions involved in sustainable forest management. Once

these institutions are better understood, local institutional development is of great urgency, for the participation of local people in managing forest resources is crucial to successful conservation.

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