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Multi-scale partnerships for tropical forest governance

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**MULTI-SCALE PARTNERSHIPS FOR
TROPICAL FOREST GOVERNANCE**

by

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Abstract

This paper aims to contribute to the understanding of partnerships for the conservation and sustainable use of tropical forests involving various stakeholders at different levels or scales. It focuses on extractive reserves in Brazilian Amazonia and the partnerships and interactions that have evolved between local populations and NGOs (national and international), government agencies and international donors for their creation, implementation and management. Extractive reserves are protected areas designated for the sustainable use of natural resources by the resident population. They aim to achieve multiple goals including conserving biodiversity, satisfying the basic needs of the population and strengthening social organisation as a means to guarantee their participatory management. The paper concludes that partnerships have played an important role in the formal creation of extractive reserves as a new management regime relying on collective action between individuals and organisations. However, it also argues that different actors become involved in extractive reserves as a means to achieve different goals, which are not always complementary or even compatible. Partnerships are affected by a number of unconstructive dynamics and incentive structures, which emerge when there are significant power inequalities between the different actors, including inequalities related to access to financial resources.

Keywords: partnerships, co-management, extractive reserves, access rights, Brazilian Amazonia

1. INTRODUCTION

Efforts to promote the sound management and conservation of tropical forests are increasingly characterised by collaborative arrangements bringing together local users, governments, NGOs and international donors. These partnerships facilitate a multi-dimensional approach to management drawing upon the unique knowledge, skills and resources of the different partners, which can be dependent upon the scale at which they operate. Local users, for example, have first-hand practical knowledge of ecosystems that can form the basis of management strategies. Governments have the authority to adopt national policies for sustainable forest management and can provide opportunities for community empowerment and local ownership of natural resources. Many NGOs demonstrate flexibility to work with local communities, donors, governments and the private sector, providing valuable technical expertise in a number of areas, including the development of new livelihood opportunities. Donors and international agencies, in turn, can mobilise the financial resources and constituency to enable the shift towards sustainable management of forests.

Emerging research supports the need for collaboration between a diverse set of stakeholders operating at different levels, often in networks, from local users, to municipalities, to regional and national organisations, and also international bodies (Olsson et al., 2003). Berkes (2002) argues that cross-scale institutional linkages facilitate more effective and equitable resource management. Co-management and multi-stakeholder arrangements are examples of institutional forms that demonstrate potential for promoting such linkages. The distinguishing characteristic of these new approaches is their emphasis on local users. Adaptive management, a process by which institutional arrangements and ecological knowledge are tested and revised in a dynamic, ongoing, self-organised practice of learning-by-doing, is gaining in importance as an alternative to more rigid approaches less effective at dealing with social and environmental change (Gunderson, 1999; Holling and Sanderson, 1996). Adaptive management also requires connecting institutions and organisations across levels and scales. Such connections, which are often networks, facilitate information flows, knowledge sharing and collaborative learning, which are essential to the process of responding adaptively to changes (Olsson et al., 2003).

Despite the potential of management regimes featuring partnerships between local natural resource users and other stakeholders, implementation issues are critical. So far, the literature on collaborative management does not deal satisfactorily with the practicalities of building community-based systems of resource management supported by, and working with, institutions and organisations at different levels. Evidence from other areas of policy where partnership approaches have also become important (i.e. unemployment, poverty and social exclusion) indicates that there are limitations to working in partnerships (Knox, 2002). Common problems include situations where the agenda of one particular actor dominates; there is an unresolved cultural clash between the various partners; partners have aims and objectives that cannot be reconciled; the partnership focuses on short-term projects rather than long-term strategies; there is no clear accountability between partners; the roles and expectations of the different partners are not explicitly established; and the organisations involved are unrepresentative of the groups or communities they claim to act on behalf of (Mullett, 2001; see also Greer, 2001). Partnerships for the sustainable management of natural resources are likely to reflect similar dynamics.

Partnerships are fundamental to encourage a shift towards more effective, equitable, and legitimate systems of resource governance. Nonetheless, crafting new institutions and promoting organisational change in favour of collaborative governance is a political process in which the different actors involved seek to safeguard their interests. Thus, bargaining strength plays a central role (Young, 2002). Despite the intrinsic appeal of governance arrangements featuring partnerships and other types of collaboration, much still needs to be

understood about the processes involved and the tensions that emerge from cross-scale interactions between institutions and organisations with often fundamentally different goals, cultures, worldviews and power (Young, 2000). Diversity may be a source of strength in that management solutions can draw upon the knowledge, skills and resources of the different stakeholders. However, it also means ample room for dispute and tensions. It is important to recognise that these dynamics are inseparable from the process of linking institutions and organisations.

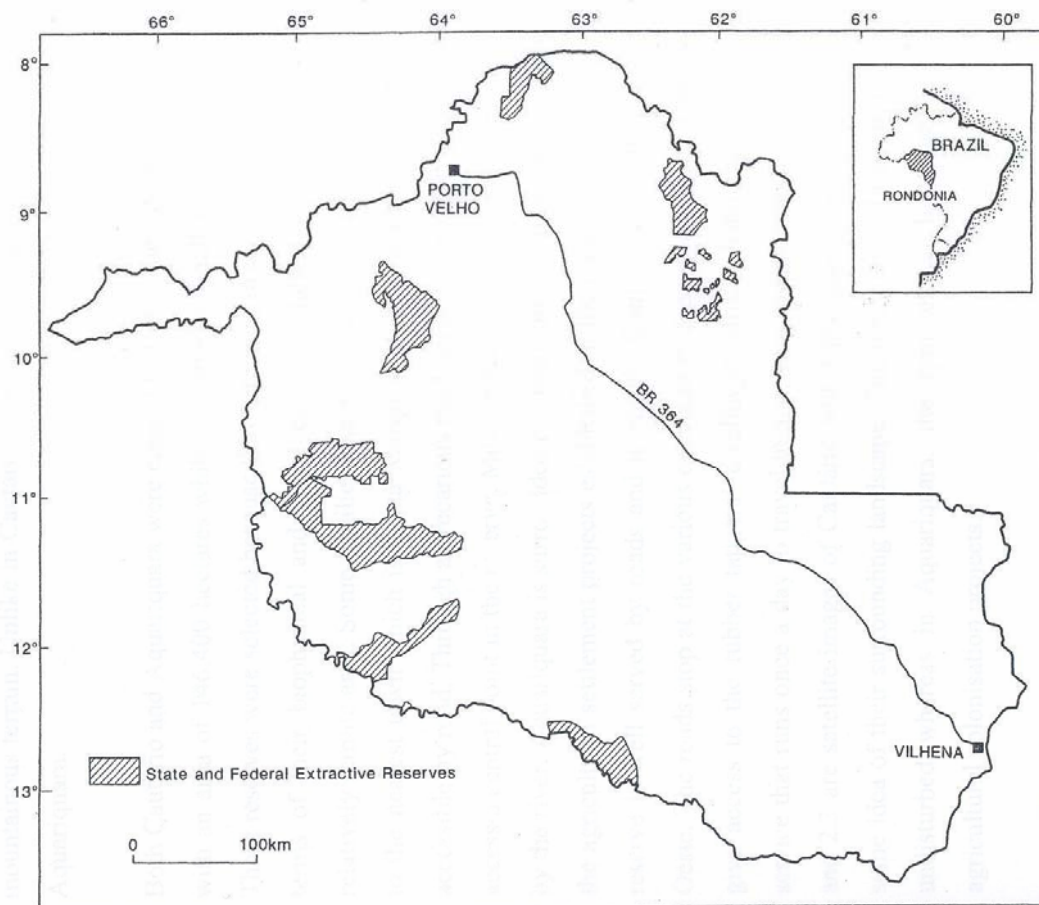
What contexts facilitate the emergence of partnerships between different stakeholders, the implications of power inequalities between the different partners, the long-term sustainability of these arrangements, and what they actually achieve in practice are among the questions that need to be further explored. This paper aims to contribute to a better understanding of such issues. It examines the interactions between a diverse set of actors involved in the creation, legal implementation and development of extractive reserves in Rondônia State, in Western Brazilian Amazonia. Extractive reserves are a co-management approach that emerged in Brazil during the 1980s aiming to promote the sustainable use and conservation of tropical forests. In extractive reserves, management responsibilities are shared between the government and organisations representing the local residents. The paper focuses on extractive reserves established by the Rondônia Government within an initiative funded by the World Bank, the Rondônia Natural Resources Management Project (PLANAFLORO).

The paper proceeds as follows. Section 2 explains the methodology used. Section 3 provides the background to extractive reserves in Brazilian Amazonia as a means to link conservation and social and economic development objectives. Sections 5, 6 and 7 describe and analyse three different processes that are essential to set up extractive reserves and guarantee their overall viability. The creation of extractive reserves by the government is the first step towards guaranteeing the rights of the local population to natural resources. This process is analysed in section 5, with particular attention being given to the interactions between different actors, including the role of alliances and networks. Section 6 deals with the legal implementation of extractive reserves, which is required to consolidate property rights. It focuses on the different levels of government involved and the negotiations between key agencies. Section 7 examines the development of extractive reserves, focusing on the establishment of management structures and efforts made to improve their economic viability.

2. NOTE ON METHODOLOGY

The paper is based on ethnographic research undertaken in Rondônia, in Western Brazilian Amazonia (see Figure 1). The research took place over a total period of 14 months between 1999 and 2001. It involved semi-structured interviews with inhabitants of extractive reserves, community leaders, leaders and staff of grassroots organisations, NGO workers and government officials. Data were also collected using participation observation and a research method known as 'process documentation', which was developed to monitor and document the implementation of projects, and study the actors involved and the interactions between them (Lewis, 1998; Mosse, 1998). Process documentation relies primarily on participant observation in organisations. In this research, it was applied to study the Organisation of Rubber Tappers of Rondônia (OSR) and its interactions with other actors and institutions involved in the creation, legal implementation and development of extractive reserves. It consisted of accompanying the everyday activities of the organisation, including how problems were dealt with, decisions made and strategies formulated. It also involved attending meetings with extractive reserve communities, NGOs, government and donors.

Figure 1: Rondônia: extractive reserves



3. BACKGROUND TO EXTRACTIVE RESERVES

Extractive reserves are protected areas established by the government granting traditional populations rights to occupying lands and using natural resources for livelihoods (Allegretti, 1990; Schwartzman, 1989). This concept was proposed in the mid-1980s by the rubber tappers or *seringueiros*, a group of traditional forest dwellers that practice a combination of agricultural and forest extraction activities known as *agro-extractivism*. Extractive reserves are rooted in struggles initiated by the rubber tappers in the 1970s to obtain legal rights to their traditional landholdings or *colocações* (Hecht and Cockburn, 1989). These landholdings belonged to large rubber producing areas known as rubber estates or *seringais* owned by entrepreneurs called *seringalistas*. Over the years, exploiting rubber estates became increasingly less profitable and by the 1950s few *seringalistas* remained in business. Many abandoned their estates freeing the rubber tappers from harsh labour conditions and enabling them to become independent producers. In the early 70s, however, these estates began being sold off to cattle ranchers from Southern Brazil attracted by generous government incentives for cattle ranching.

In Acre, a region in Western Amazonia, the rubber tappers began organising collectively to confront the teams hired by the cattle ranchers to evict families from their landholdings and clear the area for pasture. In contrast with other regions of Amazonia, the Acre rubber tappers were politically active, particularly through participation in rural unions. The Brazilian Workers' Party (PT) and the Catholic Church supported the rubber tappers mobilisation and organisation. These actors played an important role in the re-democratization of Brazil, especially by supporting the development of civil society¹. Land reform was one of the social justice issues that rural unions, the PT and the Church advocated. Interaction with these actors led the *seringueiros* to articulate their claims within a broader movement for agrarian reform. However, there was not much progress in securing an effective programme of agrarian reform, especially one that responded to their specific needs and resource use patterns. In the early 80s, other options began being considered, including the establishment of extractivist settlement projects and extractive reserves, which combined land rights and environmental conservation objectives. The rubber tappers formulated these alternative approaches with the help of researchers, NGOs and supportive government agencies.

The rubber tappers struggle evolved at a time when international environmentalists were paying particular attention to the problem of tropical deforestation, especially in Brazilian Amazonia. The extractive reserves concept proved enormously attractive from a conservation and sustainable development point of view and rapidly became a key element of strategies for more environmentally sustainable development in the region. From a proposal concerned essentially with land rights, extractive reserves gradually acquired environmental conservation goals which enabled them to be included in environmental policy as protected areas (Keck, 1995). With the 1992 Rio Conference on Environment and Development approaching, support for the establishment of extractive reserves grew stronger. They attracted the support of actors with a strong influence over development policies in Brazilian Amazonia, particularly the World Bank, a key provider of funding for development programmes implemented by the Brazilian government. Support for extractive reserves was included in two major internationally-funded programmes to promote conservation and sustainable use of natural resources in Amazonia, the Rondônia Natural Resources Management Project (PLANAFLORO) and the Pilot Programme for the Conservation of the Brazilian Rain Forest (PP-G7).

¹ See Assies (1999) for an account of the role of the Catholic Church and the Brazilian Left in supporting social movements.

4. FORMAL CREATION OF EXTRACTIVE RESERVES

In Rondônia, the creation of extractive reserves has involved a diverse set of actors, including grassroots organisations concerned with representing the agro-extractivist population, the State Government, advisory and environmental NGOs, and international institutions such as the World Bank and the United Nations Development Programme (UNDP). Twenty out of the twenty-two extractive reserves that currently exist in Rondônia were established under PLANAFLORO, a programme funded by the World Bank and implemented by the Rondônia Government from 1992 to early 2000 (see Table 1). The process for the creation of these areas required collaboration between the government and local populations. It also provided a motive for the involvement of and partnerships between other actors, including NGOs that worked closely with the rubber tappers' grassroots organisations and the UNDP, the latter engaged in assisting the Rondônia Government to implement extractive reserves within PLANAFLORO. This section examines the process leading to the creation of extractive reserves. It demonstrates that getting stakeholders with different resources, cultures and power to collaborate productively is a complex undertaking. Different actors see collaboration as a means to achieve quite different goals, which are not always complementary or even compatible.

Table 1: Extractive reserves in Rondônia

Name	Location	Area (ha)	N.º of Families
Rio Cautário (S)	Costa Marques	146,400	60
Rio Cautário II (F)	Costa Marques	73,817	n/a
Curralinho (S)	Costa Marques	1,758	6
Rio Pacáas Novos (S)	Guajará Mirim	342,903	55
Rio Ouro Preto (F)	Guajará Mirim	204,583	107
Pedras Negras (S)	São Francisco	124,409	19
Rio Jaci-Paraná (S)	Nova Mamoré	191,324	23
Aquariquara (S)	Vale do Anari	18,100	51
Seringueiras (S)	Vale do Anari	537	1
Itaúba (S)	Vale do Anari	1,758	2
Rio Preto Jacundá (S)	Machadinho	115,278	50
Maracatiara (S)	Machadinho d'Oeste	9,503	19
Ipê (S)	Machadinho d'Oeste	815	4
Jatobá (S)	Machadinho d'Oeste	1,135	2
Massaranduba (S)	Machadinho d'Oeste	5,556	4
Angelim (S)	Machadinho d'Oeste	8,923	3
Sucupira (S)	Machadinho d'Oeste	3,188	n/a
Mogno (S)	Machadinho d'Oeste	2,450	8
Freijó (S)	Machadinho d'Oeste	600	1
Roxinho (S)	Machadinho d'Oeste	882	3
Piquiá (S)	Machadinho d'Oeste	1,448	6
Castanheira (S)	Machadinho d'Oeste	10,200	6
Garrote (S)	Machadinho d'Oeste	802	3
Cuniã (F)	Porto Velho	95,000	45

(S) State Extractive Reserve; (F) Federal Extractive Reserve

n/a: information not available

4.1 The PLANAFLORO process

Initiated in 1992, PLANAFLORO was presented as an improved approach to natural resource management, conservation and sustainable development in Brazilian Amazonia (Redwood III, 2002). This initiative was partially aimed at addressing the social and environmental problems that another regional development initiative funded by the World

Bank, the Development Programme for the North-West Region of Brazil (POLONOROESTE), contributed to causing. Implemented during the early 1980s, POLONOROESTE became the focus of international criticism regarding the role of multilateral banks in promoting tropical deforestation (Rich, 1994). Critics called for these institutions, in particular the World Bank, to change their lending policies in favour of more environmentally and socially responsible development. PLANAFLORO became a showcase project to demonstrate the World Bank's new approach to development, which emphasised conservation measures, sustainable resource use and stakeholder participation (World Bank/SAR, 1992). Alongside with conventional development components such as infrastructure development, PLANAFLORO included a number of innovative measures including: support for integrated farming systems; creation and implementation of protected areas; support for indigenous communities; and implementation of agro-ecological zoning. One sub-programme was exclusively aimed at the establishment of extractive reserves.

The potential of PLANAFLORO to promote environmental conservation and sustainable development in Rondônia was widely recognised. However, as NGO activists interviewed during field research stressed, there were also concerns regarding the effectiveness of project implementation at the hands of the Rondônia Government. As these activists explained, while the Government needed the investment brought in by PLANAFLORO to stimulate Rondônia's economy, it was not genuinely interested in its environmental objectives, which for the World Bank, in contrast, were fundamental. Measures such as the establishment of protected areas were seen as a 'straightjacket' that prevented the expansion of agro-industry, the development strategy favoured by the Government. Concerns also emerged with regards to the ability of local populations to participate and benefit from PLANAFLORO. According to the World Bank, the direct beneficiaries of the project were the rubber tappers, indigenous peoples and small farmers and a number of measures were aimed at creating conditions for these groups to manage natural resources. However, these groups also lacked strong representative organisations capable of articulating their interests. It became increasingly clear that organising them and strengthening their ability to participate in policy making were essential to guarantee the effective implementation of PLANAFLORO, including environmental conservation.

The groundwork for the creation of extractive reserves in Rondônia was initiated in the late 1980s by the State Institute of Forests (IEF), an agency established by the Rondônia Government to plan forest use and conservation. IEF developed the first efforts to organise the Rondonian rubber tappers. Some of the specialists employed by IEF had previous experience with community development and were familiar with the rubber tappers' movement in Acre led by the National Council of Rubber Tappers (CNS), a grassroots organisation created in 1985 to represent rubber tappers and other extractivist groups and advocate the creation of extractive reserves. IEF began to promote the concept of extractive reserves among the rubber tappers as a means to secure their rights to land and to explain the importance of being organised to claim the establishment of these areas, which had to be negotiated with government. The participation of the CNS in this awareness-raising and mobilisation process was relatively small.

NGOs were another set of actors that played an important role in the organisation of the Rondonian rubber tappers. Some of these NGOs were set up by the same individuals employed by IEF. Once their contracts with the government terminated, they set up NGOs and applied for funding from international organisations to continue working with rubber tappers and other local groups. Supported and nurtured by NGOs, the social movement of rubber tappers that emerged in Rondônia evolved largely independently from the CNS. In 1990, at a meeting bringing together rubber tappers from various regions of Rondônia, the decision was made to establish an entity concerned specifically with representing Rondônia's agro-extractivist population, the Rondônia Organisation of Rubber Tappers (OSR).

The OSR became actively engaged in negotiating the creation of extractive reserves within PLANAFLORO, an action it developed in collaboration with Brazilian and international NGOs. WWF, one of the world's largest conservation organisations funded a project aimed at facilitating the creation of extractive reserves, which was initially implemented by a partnership between three small Brazilian NGOs and the OSR. Among other things, the project provided modest salaries to grassroots leaders, which enabled them to dedicate more of their time to advocacy and community organisation activities. It also enabled the NGOs to provide specialised assistance to the OSR in different areas, including the legal aspects of extractive reserve creation and on how to improve household incomes and livelihood security. Collaboration and partnerships between the OSR, Brazilian NGOs and WWF were therefore of vital importance to strengthen the capacity of the rubber tappers to negotiate the creation of extractive reserves.

Despite the broad coalition that emerged in support of extractive reserves, their effective creation was difficult to guarantee and required even more extensive coalitions and as well as advocacy beyond the state level. By 1995, none of the reserves included in the PLANAFLORO milestones had been established. In addition, various other implementation failures and problems were apparent in PLANAFLORO. One of the main objectives of PLANAFLORO consisted of the creation of a network of protected areas, which included extractive reserves, state parks and state forests. Many of these were not created. Some of the few protected areas that were created demonstrated irregularities in their demarcation, with the boundaries set on maps not corresponding to the actual boundaries marked out on the ground. These errors reduced the area under protection, leading to accusations of being deliberately made to accommodate landowning interests. Moreover, while the government delayed the creation of protected areas, these areas were being logged, illegally settled and suffering other pressures. The agro-ecological zoning legislation, another fundamental goal of PLANAFLORO, had not been implemented either. Few actions were aimed at supporting indigenous communities and finally the arrangements for the participation of civil society in project decisions, monitoring and evaluation did not operate.

One organisation proved a crucial ally in efforts to guarantee the creation of extractive reserves, namely the Forum of NGOs and Social Movements of Rondônia. The Forum, as this organisation is known, is an umbrella NGO created in 1991 with the specific aim of representing civil society in PLANAFLORO and monitoring its progress. Although the Forum does not represent the entire spectrum of civil society in Rondônia, it brings together actors concerned with natural resources management and environmental conservation and that had an interest in the outcomes of PLANAFLORO. The rubber tappers' organisations formed part of the Forum as well as organisations representing indigenous groups and small farmers. The NGOs working with these social groups were also members. WWF was one of the Forum's main providers of funding (the other was OXFAM), demonstrating the extent to which this international environmental NGO considered PLANAFLORO a fundamental opportunity to promote environmental conservation in Rondônia. In addition to the Forum and the rubber tappers, WWF also funded projects aimed at supporting indigenous populations and small farmers, the two other groups that PLANAFLORO intended to benefit.

The Forum co-ordinated several actions aimed at alerting the World Bank regarding the problems affecting PLANAFLORO, including a letter requesting its suspension sent in 1994. In 1995 the Forum went on to submit a request to the World Bank Inspection Panel asking for a formal investigation of PLANAFLORO². The request featured evidence of many of the problems mentioned earlier and highlighted the negative impacts of such problems on protected areas, indigenous and traditional populations. The Forum's links with policy

² The World Bank Inspection Panel is a body created in 1993 to 'provide an independent forum to private citizens who believe that their interests have been or could be directly harmed by a project financed by the World Bank' (<http://www.worldbank.org/html/ins-panel/overview.html>).

advocacy networks in Brazil and internationally proved crucial to publicise the investigation request and mobilise public opinion. Most interviewees affiliated to the organisations represented by the Forum agree that the request for investigation had a real impact on the implementation of PLANAFLORO. It forced the World Bank to pressure the State Government into taking remedial action. Following the request for investigation, significant progress was made in several areas, including the creation of nineteen extractive reserves. The request for investigation also prompted negotiations between the Government and project stakeholders with a view to decentralising funding and make it more accessible to local communities. These negotiations resulted in a Programme for the Support of Community Projects (PAIC), which for the rubber tappers became an important source of funding for community-based projects.

The case described above demonstrates the importance of partnerships and networks in creating conditions for putting into practice a management regime that can potentially empower local groups and improve their access to natural resources while at the same time generating conservation benefits at wider scales. However, the formal creation of a new management regime in which local populations are given control over natural resources is not guarantee that conservation will follow. Extractive reserves can suffer the same fate as 'paper parks' or protected areas established by government decree but not implemented in practice. For extractive reserves to become socially, economically, politically and environmentally viable a number of further actions are necessary. For example, they need to be legally implemented, which enables reserve residents to gain formal rights to their landholdings. They also need to be effectively managed and developed, which involves creating and strengthening management institutions and implementing economic, social and environmental development initiatives. Collaboration between local users and other stakeholders is also fundamental for extractive reserves to achieve their overall objectives. The following section examines the legal implementation of extractive reserves, which is about addressing the property rights framework.

5. LEGAL IMPLEMENTATION

Clearly defined and secure property rights to natural resources are among the fundamental conditions for users to invest in sustainable resource management. Extractive reserves are co-management regimes in which management responsibilities are shared between reserve residents and the government. An extractive reserve is an area established and owned by the government to which local residents are given rights to use resources. The government leases the reserve to an association representing its residents, which is a binding contract defining the responsibilities of government, those of the association and those of the resource users themselves. Once in possession of the lease, the association then issues individual concessions to individuals living in the reserves that function as land titles to their traditional landholdings or *colocações*. In exchange for rights to use resources reserve residents agree to follow a management plan called Utilisation Plan, a document that outlines the norms governing resource use, the monitoring instruments, the principles for the application of sanctions, and conflict resolution mechanisms. This plan reflects both traditional resource user norms and modern environmental legislation and is prepared with the participation of all reserve residents. For families to be given legal rights to their landholdings, a complex process of land adjudication must be undertaken, which involves different agencies and levels of government. However, the process of land adjudication which enables extractive reserves to be legally implemented and the property rights framework to be firmly established has been highly contentious and politicised (see Hall, 1997; Allegratti, 1994 and Ruiz and Pinzón, 1995 on the process for the operationalisation of extractive reserves)

5.1 Resolving Property Rights and Jurisdiction

The legislation regarding extractive reserves in Brazil was designed for reserves created by the Federal Government. In this legislation, extractive reserves are placed under the administration of IBAMA, the Federal Environment Agency. After a reserve is formally created, steps must be taken to implement it legally. This involves analysing the land title situation and determining the actions needed to place the entire land area encompassed by the reserve under the control of IBAMA. Many reserves were created in so-called 'public lands' under the administration of INCRA, the Federal Land Agency. Most reserves, however, also encompass privately owned lands. For example, extractive reserves have normally been established in areas where former rubber estates existed, many of which are owned by elites that in the past were involved in the rubber trade or by individuals that acquired lands more recently. Privately owned lands must be expropriated and their landowners adequately compensated. Once this process is complete and the reserve is under the control of IBAMA, the lease contract can be signed and individual land use concessions issued to the rubber tappers.

Extractive reserves created by State Governments obey to similar legal procedures but the process is more complex and involves the transfer of jurisdiction over the public lands where these areas were established from the Federal to the State domain. Specifically, INCRA must transfer the lands under its administration to the relevant agency at the state level. This agency was initially ITERON, the State Land Agency, but later became SEDAM, the State Environment Agency. However, as rubber tapper leaders explain, these different agencies and levels of government often compete for power and influence rather than working together to advance the procedures for the effective legalisation of extractive reserves. Furthermore, legal provisions at the national level governing protected areas established by State and Local Governments are poorly defined and co-ordinated, which means that the legality of some of these areas is sometimes questioned. For example, INCRA still does not recognise the protected areas established by the Rondônia Government. In a number of cases, INCRA has created agricultural settlement projects in areas that impact on these areas (Millikan, 1997; Forum and FoE, 1995).

The process of reserve legalisation in Rondônia has progressed slowly, largely because of the difficulty to reconcile the interests of the different agencies involved. For example, the State Government is interested in gaining greater authority over its territory and sees the legalisation of protected areas as a means to achieve it. When the State of Rondônia was established in 1982, most of its territory remained under the authority of INCRA. As one NGO activist remarks, the reasoning of Rondônia's politicians is that once the State Government gains control over protected areas it will then be able to manipulate State legislation to accommodate developmental interests. Many rubber tappers admit that reserves under the jurisdiction of the State Government are not an ideal solution. However, according to them it was the most feasible solution at the time given the urgency to place extractivist areas under some form of protection. However, they also consider that failure to address the legal situation of extractive reserves is having a detrimental effect on their confidence in the future of these areas. Some families have lost interest in extractive reserves and preferred the typical agricultural colonisation plots distributed by INCRA that come with land titles and in which is more secure to invest.

OSR leaders recognise that the creation of extractive reserves in Rondônia owes largely to PLANAFLORO and the influence that the World Bank had over the State Government. However, since the conclusion of PLANAFLORO and without the weight of World Bank conditionality, the new government has threatened numerous times to invalidate the protected areas established by its predecessor. The Governor of Rondônia, for example, has declared that state protected areas would be abolished if the Federal Government did not pass legislation allowing landowners to deforest higher proportions of their landholdings than what is currently permitted under national legislation (GTA/RO, 2003). Thus, extractive reserves and other protected areas are being drawn in into disputes between levels of government. According to the rubber tappers, many politicians in Rondônia see extractive reserves as being too large for the number of people that inhabit them, defending a reduction in their area. Politicians defend this on equity grounds, questioning the reason why rubber tappers should be given rights to large areas of land while small farmers, for example, are entitled to significantly smaller parcels.

6. MANAGEMENT AND DEVELOPMENT

Institutional arrangements based on collective action are needed for the sustainable management of the reserves as common property regimes. This implies the self-organisation of local residents to make decisions over management and other issues affecting extractive reserves. Improving household incomes, diversifying production and improving access to health and education are also fundamental. This would provide families with an incentive to remain in the forest, while at the same time giving them an interest in preserving natural resources (Hall, 1997). In the Brazilian context, where government capacity to enforce environmental legislation is weak, forests inhabited by people is often more effective means to conserve forest cover than people-free protected areas (Schwartzman et al. 2000a, 2000b). However, many problems affecting extractive reserves cannot be addressed by local residents alone. The involvement of and partnerships with other actors are also essential (Hall, 2000). Forming such collaborative links is of extreme importance for the development and management of extractive reserves, but as the examples below show not all collaboration has worked effectively or completely free of unconstructive dynamics.

6.1 Extractive Reserve Co-Management

PLANAFLORO provided considerable support for the management of extractive reserves, including the improvement of infrastructure for production and service provision. Most of this support was channelled through SEDAM, the government agency directly concerned with the management of state extractive reserves. SEDAM had a number of responsibilities, including helping communities to prepare and implement resource use plans, promote community organisation and help households to improve production. The United Nations Development Programme (UNDP) was involved to work alongside SEDAM and to build its capacity to enable the development of extractive reserves. UNDP employed consultants specialised in working with communities using participatory approaches.

From 1995 to 1998, the period during which UNDP consultants worked in extractive reserves, significant advances were achieved in community organisation for reserve management. For example, development plans for a number of reserves were prepared, enabling communities to express their needs and establish development priorities (Weigand Jr and de Paula, 1998). UNDP also facilitated collective action processes whereby communities organised for clearing footpaths, improving the navigability of waterways, building community centres among other jobs requiring collective efforts. These consultants also played an important role in mediating conflicts at the community level. Progress in the self-organisation of communities, however, was not long lasting. According to one of the consultants employed to work in extractive reserves, when the UNDP project came to an end, communities were not yet capable of organising without external support and facilitation. She added that the time it takes for community institutions to develop and mature is different from the time of projects. This means that it may not be feasible to build collective action institutions through external interventions within the life-cycle of typical projects such as PLANAFLORO.

Equally important, the capacity of SEDAM to provide adequate support for the development and management of extractive reserves was not strengthened. According to one project evaluation report, the activities aimed at improving community organisation for extractive reserve management were undertaken largely by UNDP without the involvement of SEDAM. The training and learning-by-doing of SEDAM staff alongside UNDP experts did not happen to any significant degree. On the positive side, UNDP established a close working relationship with the associations of rubber tappers and the OSR, which facilitated the implementation of community development activities (GOR and UNDP, 1997). At the end of PLANAFLORO, SEDAM was not equipped with the necessary expertise to give continuation

to extractive reserve management and development activities. According to OSR leaders, the State Government lacks a coherent policy for extractive reserves. They also note that part of the problem preventing SEDAM from doing a better job is lack of support from within the government itself.

Protecting extractive reserves from environmental degradation is fundamental for their long-term viability and development. Until now, the greatest environmental pressures on these areas have been from external actors, especially loggers and land grabbers. SEDAM holds some of the responsibility for monitoring and defending the protected areas established by the State Government. However, this responsibility also overlaps with the mandate of IBAMA, the Federal Environment Agency, whose job is to enforce national environmental legislation. There is a debate in Brazil regarding the relative competencies and responsibilities of different levels of government in relation to environmental management. In theory, environment agencies in each State should establish an agreement with IBAMA defining respective responsibilities. Failure to implement this agreement effectively in Rondônia has led to a situation whereby IBAMA shies away from operating in protected areas established by the State Government while SEDAM claims not having the means and authority to monitor such areas. In the opinion of some NGOs interviewed, however, the bottom line is that neither of these agencies is efficient and effective at doing its job.

The ineffectiveness of Government at both the Federal and State level to protect extractive reserves from external pressures has led the rubber tappers to develop their own self-organised monitoring and protection efforts. This often involves confronting loggers and other individuals acting illegally in extractive reserves, gathering evidence of such activities, pressuring environmental agencies to take action and exposing environmental crimes in the media. Engaging the support and liaising with public prosecutors has been one of the most effective means of reducing illegal logging in extractive reserves. Public prosecutors in Brazil have powers to indict suspects of environmental crimes to respond to accusations put forward by individuals or civil society organisations. This has led to a number of trials and convictions which served to dissuade loggers from plundering timber in the reserves.

6.2 Economic Viability

A crucial challenge facing extractive reserves is improving their economic viability. For the rubber tappers' organisations and the NGOs working with them it is clear that economic alternatives based on the non-destructive use of the forest need to be developed. Since 1993, projects funded by WWF with aim of supporting extractive reserves have also had economic development aims. The funding provided by WWF enabled ECOPORE, an advisory NGO working together with the OSR, to develop and implement economic alternatives, or ways to supplement or improve the returns of traditional income-generating activities. A number of projects were made possible through the partnership between OSR, WWF and ECOPORE, including community-based logging and ecotourism, and the production of a rubber-coated textile known as ecological leather or *couro vegetal*. WWF provided seed funds to initiate many of these alternatives. With pilot projects off the ground, it became easier to obtain additional financial support from initiatives such as PLANAFLORO, the Pilot Programme for the Conservation of the Brazilian Rain Forest (PP-G7) and specific government programmes. More ambitious projects relied on funding from different agencies, each supporting a specific component. For example, feasibility studies for ecotourism were funded by WWF. The construction of infrastructure, including a lodge and visitors centre, and purchase of equipment, were funded by PLANAFLORO and PP-G7. Finally, funding for consultancy and training has been provided by WWF.

Community-based logging is amongst the most promising options to improve the rubber tappers' income. So far, logging projects have been implemented in four state extractive reserves. Logging is undertaken according to sustainability criteria to ensure forest

regeneration and structure. Although this is also more expensive than conventional logging methods, timber from a sustainable source can obtain higher prices in markets for certified timber. In Rondônia, efforts are underway to certify the rubber tappers' logging projects through the Forest Stewardship Council (FSC), an internationally recognised certification initiative. However, obtaining certification is a complex process given the comprehensive set of criteria that must be met, which includes not only ecological criteria but other criteria related, for example, to resource tenure and use rights and responsibilities, community relations and workers' rights, benefit sharing, an monitoring and assessment. Much effort has been invested by advisory NGOs to enable community projects to meet all these criteria, but progress has been slow owing to its complexity and the fact that some criteria require additional financial investments, which put stress in already overstretched budgets. Until recently, the certification process had not yet been completed and as a consequence timber was being sold in local markets, fetching only modest prices.

The economic alternatives developed in extractive reserves are practical examples of what partnerships between different actors can achieve. ECOPORE has provided the technical expertise needed to develop and implement projects. By working with communities and grassroots organisations ECOPORE has been able to attract funding aimed at community-based resource management activities. These initiatives have contributed to establishing linkages between local groups and donors. However, the partnerships with which the projects evolved and are implemented have also experienced tensions. For example, disputes have emerged over the management of community logging projects. In one reserve, the community grew increasingly dissatisfied with the outside administrator employed by the NGO to manage the community timber mill and decided to appoint its own administrator, who was also a community member. The NGO opposed this decision claiming that the community did not have the necessary expertise to manage the mill and commercialise the timber. In turn, the community argued that the NGO was dominating the project and denying it greater control over management decisions.

In these organisational conflicts, the clashes are often between key people, namely NGO directors and community leaders. This demonstrates that partnerships are as much about promoting linkages between organisations as managing relationships between the people involved. In organisational terms, however, conflict may also enable partnerships to evolve. Through negotiation, ECOPORE and the community reached a compromise over project management. The community kept its manager and the NGO limited its role to providing technical assistance. A similar problem emerged in another reserve where the association responsible for the reserve accused the NGO of excluding it from project management. However, a compromise was hard to reach in this particular case. The NGO felt that the community was being manipulated by unscrupulous leaders interested in gaining power over project financial resources and decided not to continue working with the community.

Another type of partnerships with potential to facilitate the management of forests and other ecosystems are those between local groups and international NGOs. WWF provided much of the financial support that enabled the OSR and advisory NGOs to advocate the creation of extractive reserves. Its funding has also been essential for the implementation of a number of income generating projects. The strategic importance of WWF actions is widely recognised by the organisations working with traditional and indigenous communities in Rondônia. Collaborating with the rubber tappers has also been beneficial for WWF. Extractive reserves in Rondônia represent over one million hectares of tropical forest under protection, which otherwise would be much more vulnerable to destruction and degradation. However, the partnership between WWF and the rubber tappers also demonstrates unconstructive dynamics and incentive structures.

According to Kiss (1999), unconstructive dynamics and incentive structures can emerge in externally funded community-based conservation projects. This includes situations where

projects build dependency rather than self-sufficiency. For example, recipient organisations often expand their infrastructure, staff and activities and develop modes of operating that become impossible to sustain without continual flows of external funds. Some elements of this donor/recipient dynamic are present in the relationship between WWF and the rubber tappers' organisations. These organisations have become strongly dependent on funding from WWF. At the time of research, WWF had ceased to fund the associations responsible for managing extractive reserves. As a result, the activities of these organisations came almost to a halt. Association leaders had grown accustomed to receiving a salary for their work, paid with WWF funding. Many had abandoned their livelihood activities in extractive reserves and moved to the towns where associations have an office. Unpaid, many were unwilling to develop their leadership activities.

The OSR's dependency on a single source of funding has implications for its autonomy. In one occasion, for example, WWF used its influence to maintain in power the leaders it considers capable of governing the OSR (and achieving project objectives) by simply threatening to withdraw funding if such leaders were not elected. This led to a re-negotiation of the candidatures which guaranteed the electoral outcomes that WWF wanted. The OSR has been governed essentially by the same group of leaders ever since WWF began funding it over more than a decade ago. This has contributed to making the OSR a reasonably cohesive organisation where there is a core group of leaders who work well together. However, there has also not been any significant rotation in leadership, which means that over the years very few people from the grassroots have become OSR leaders. As a result, there are few opportunities for new leaders with potentially good ideas to emerge.

Parallel to this, the core group of leaders that governs the OSR have gradually moved with their families to urban centres. Many have completely abandoned extractive activities and depend exclusively on the salaries they receive (paid with funding from WWF) to provide for their families. The separation between those that govern the OSR and those that are represented by it has implications in terms of the extent to which ordinary rubber tappers living in the extractive reserves feel effectively represented by their leaders. Although the work the OSR develops is widely recognised and valued at the grassroots level, many rubber tappers also argue that their leaders only visit the reserves sporadically and since they do not live there are simply out-of-touch with the realities of life in these areas.

7. CONCLUSION

Extractive reserves are an approach that aims to link the conservation of biodiversity, which generates benefits for global society, with local development needs. The case-study presented in this paper demonstrates that partnerships between actors at different scales or levels have been important for the implementation of conservation and development initiatives. Partnerships with national and international NGOs, for example, enabled the rubber tappers to negotiate the actual establishment of extractive reserves areas with the State Government. However, this happened within the context of PLANAFLORO, which was supportive of participation. To some extent, the involvement of international NGOs, Brazilian advisory NGOs and the World Bank provided an enabling environment for the empowerment of the rubber tappers in negotiations with government regarding the establishment of extractive reserves. However, this also meant that the rubber tappers became heavily dependent on World Bank involvement and support from international actors to make their claims heard by the Government. This strategy, however, only works under certain conditions which may be transitory. As PLANAFLORO drew to a close, for example, the Government of Rondônia is already expressing a more unaccommodating attitude in relation to conservation measures.

Although extractive reserves were created in Rondônia despite the lack of support from key sectors of Government, their implementation is not viable without Government support not only at the state level but also at the federal and local or municipal levels. The Rondônia Government has designated agencies to promote environmental conservation but many of its actions run contrary to this objective, including its development policies. Its position in relation to extractive reserves and other protected areas is contradictory, which is a reflection of the context in which these areas were promoted and established in Rondônia. Despite the importance of grassroots activism and NGO advocacy, the environmental policy innovations adopted in Rondônia, including extractive reserves, have been promoted largely from above by international actors. There has not been sufficient effort to build constituency for these measures at the state and municipal levels, especially among politicians and the business sector. Without support at these levels, the implementation of environmental measures is seriously compromised.

The partnerships that evolved to promote the creation of extractive reserves within PLANAFLORO had a tremendous impact on the ability of the Rondonian rubber tappers to articulate and defend their interests in policy making. In less than a decade, the rubber tappers in Rondônia went from lacking any significant social organisation to having a State level organisation, the OSR, and a number of local associations throughout Rondônia. Thus, although the rubber tappers can no longer rely on the same kind of strategies that worked for the creation of extractive reserves, the fact of being well organised puts them into a much better position to plan and put into practice alternative strategies to defend their claims. However, the rubber tappers' organisations continue to depend on external funding to survive, which raises questions regarding their autonomy in relation to the funding agencies.

As partnerships become the norm in project implementation and natural resource management, the relative power and influence of the different participants becomes an issue. In some partnerships funding can be used to influence decisions and outcomes. For local organisations dependent on external resources, being funded by NGOs or other donors can limit their autonomy and even accountability to their constituencies as well as create dependency rather than self-sufficiency and empowerment. For example, WWF was able to interfere in certain areas that should be decided by local actors, such as the election of OSR leaders. Negative incentive structures created by an excessive reliance on external funding can also develop. For example, WWF funding has encouraged a certain 'professionalisation' of the grassroots organisations, whereby candidates to leadership positions are attracted by the salaries and other benefits that these organisations provide.

Having designed and mobilised funding for a project, NGOs are often reluctant to phase out their involvement and hand over control to the communities they work with. They are often so preoccupied with making the projects they initiated succeed that they become reluctant to transfer management responsibilities to communities, either because they consider communities to lack capacity or to be subjected to internal conflicts and manipulation by elites or more powerful individuals. This type of unconstructive dynamic has also affected the partnerships between the rubber tappers and their advisory NGOs. These NGOs have often adopted a fairly paternalistic attitude, doing things for the organisations and communities rather than delegating or sharing responsibilities, thus also denying them control over project management and decision-making. However, this situation has gradually changed when the parties involved have not feared to discuss the problem openly. Conflicts may play an important role in prompting changes for the better. Conflicts can be a threat to partnerships but they may also be necessary for such partnerships to evolve.

Despite extractive reserves being the focus of interventions requiring co-operation between different actors, these areas have become a means for such actors to achieve what sometimes are very different and not always compatible goals. Brown and Rosendo (2000) have described these problems as misfit between institutions involved in conservation and development. Actors do not need to have exactly the same interests to co-operate. However, they do need to be flexible and adaptable to new circumstances, which are characteristics that some organisations notoriously lack. Government institutions, for example, are often associated with specific sectors and interests and often demonstrate difficulties to respond adaptively to situations requiring greater cross-sectoral co-operation, especially with civil society.

Adaptive management is fast becoming a paradigm in natural resource management situations requiring social learning and the creation of institutions. In the case of extractive reserves, adaptive management would imply facilitating institutional relations across spatial scales in ways that meet the needs of the various stakeholders and match the complexity of the ecosystems being managed. For example, it would require the involvement of actors that have so far remained at the margins of extractive reserve creation and development, including municipal governments and the business sector. It would also entail clarifying the responsibilities of each level of government and better co-ordination between all the actors involved. Adaptive management is already occurring in extractive reserves as demonstrated by the ability of some actors to modify their relationships and adapt to evolving circumstances. However, adaptive management is not a panacea. It provides general principles but no clear guidelines for action and institutional design. There are no transferable models that can be applied, only principles that must be adapted to context.

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