Certification de l'exploitation communautaire du bois au Brésil : des initiatives durables en Amazonie ?

Community-based forest management certification in Brazil: a sustainable initiative?

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Résumé

L'Amazonie Brésilienne est un des derniers grands massifs forestiers de la planète. Elle assure encore 80 % de la production nationale de bois et fait du Brésil le second plus grand producteur de bois tropical. Le secteur forestier est le premier secteur économique et fournisseur d'emploi dans plusieurs régions. Cependant, l'Amazonie Brésilienne est aussi connue pour avoir un taux de déforestation élevé – en moyenne entre 2 et 2,5 millions d'hectares annuellement – et une exploitation peu durable de ses ressources ligneuses, remettant en cause la pérennité à long terme du secteur forestier dans la région. Dans ce contexte, depuis le milieu des années 1990, on observe une croissance des projets de certification de l'exploitation durable des forêts, principalement des grandes entreprises privées, sous l'impulsion du WWF (World Wildlife Fund) qui a introduit au Brésil la certification par le FSC – Forest Stewardship Council.

La croissance des projets de certification communautaire n'est pas négligeable mais beaucoup d'entre eux n'ont pas encore débouché sur l'acquisition de la certification, trois projets ont

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maintenant acquis la certification FSC.Les projets de certification communautaire sont généralement mis en place par des organisations environnementales ou d'appui aux agriculteurs. L'espérance de gain est un des moteurs de ces projets. Au sein des communautés traditionnelles extractivistes, la gestion communautaire est également vue comme un moyen supplémentaire pour freiner la déforestation par les colons venant d'autres régions. Malgré les avantages de la certification souvent mis en avant par les organisations environnementales pour les communautés, la réalité est moins optimiste.Dans cet article, on se propose d'analyser les motifs sous-jacents à la participation à long terme des familles amazoniennes à une gestion communautaire certifiée de leur réserve forestière et la durabilité à long terme des projets certifiés existants. Les résultats sont basés sur des enquêtes de terrain dans l'Etat de l'Acre auprès de producteurs participant à deux des projets de gestion communautaire actuellement certifiés par le FSC et sur une analyse institutionnelle de ces deux projets.

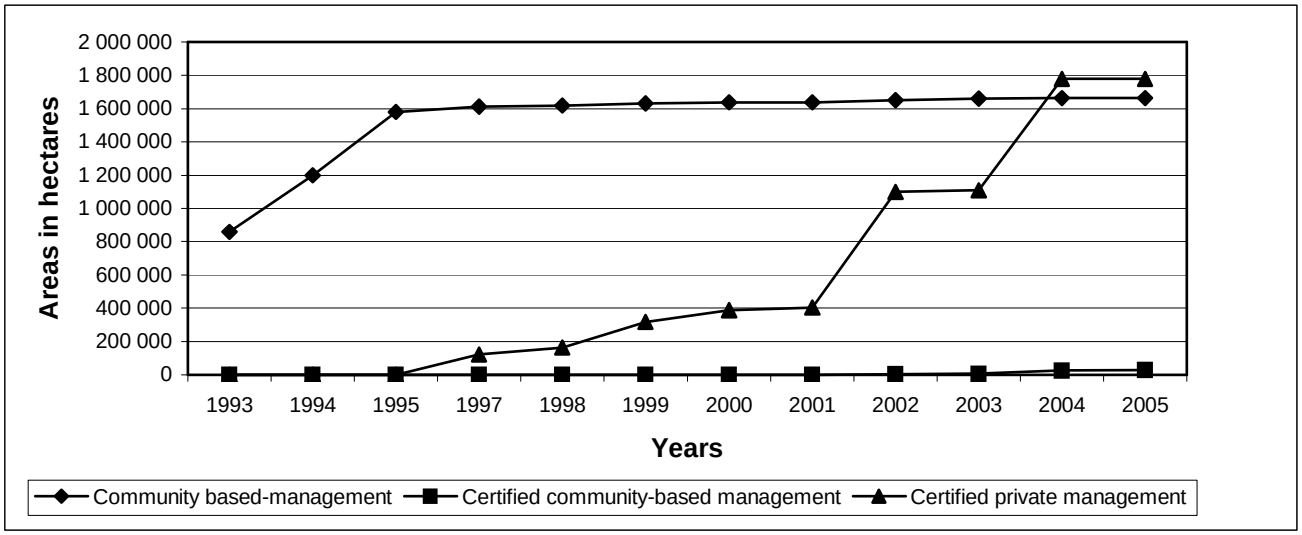
Abstract

The Brazilian Amazon is one of the largest world tropical forests. It provides more than 80 % of the national timber production and makes Brazil the second largest producer of tropical wood. The forestry sector is of major importance in several areas in term of economic product and employment creation. However, the Brazilian Amazon is also famous for its high deforestation rate - on average between 2 and 2,5 million hectares annually - and for its rather unsustainable timber resource management, putting on the balance the long-term future of the forestry sector in the region. In this context, since the middle 1990s and strongly supported by WWF (World Wildlife Fund), there has been a significant growth of forest sustainable management certification projects by the FSC - Forest Stewardship Council, mainly from large scale companies. Community based forest management certification projects have also increased, but few of them have acquired the FSC label. In 2006, eight Community-based forest management plans are certified by the FSC. Most of them have been implemented with the support of environmental NGOs and public funds. If the advantages of certification for the communities are strongly defended by such organizations, reality is less optimistic. In this paper, we analyze the underlying causes of the participation of some families to certified community- based forest management plans and the long term sustainability of such projects. The results are based on surveys made in the State of Acre (two certified community – based management plans).

Introduction

Since the middle of the years 1990s, sustainable forest resources management certification in the Amazon has known a significant growth, particularly in the case of large private companies (cf graph 1), even if certified forests still represent only a very small share of the whole area logged by timber companies. Community forest management certification is not negligible but much of the projects did not reach the FSC standards yet. Currently eight projects only are certified, five of them located in the State of the Acre

Figure 1 : Forest certification projects in the Brazilian Amazon



It represents about fifteen thousand hectares. Acre leadership is linked with environmental NGO´s efforts in promoting and financing sustainable forest management. The main, and often sole, product extracted is timber. Production of non-timber forest products is neglected mainly because of the lack of expressive market opportunities. Despite the strong public incentives of the last ten years in favour of certification, the number of participants in each certified project remains small.

Community-based sustainable forest management certification superimposes itself to the public Brazilian forest rules. Indeed, theoretically, the Brazilian legislation is rather strict and timber can be extracted from only two legal sources: forest sustainable management plans, from private companies or from communities, and deforestation permits, these latter being limited to 20 % of the surface of each rural property. These two types of authorization are normally conceded by IBAMA (Brazilian Institute for Environment) the environmental public agency of the Brazilian government. In practice, these rules are not, or rarely, enforced. The expectation of larger profit from timber logging is one of the reasons explaining the interest for FSC certification since the price of certified timber would be on average between 180 and 280 USS /m3 whereas the average price of not certified wood reaches currently only 40-60 USS/m3. Within the traditional extractives communities, community forest management is also expected to slow down deforestation by the colonists coming from other areas

Two community-based certification projects have been studied between 2003 and 2005 in order to analyze the factors influencing families' decision to join or not to the forest management and certification rules as well as their long term sustainability. Since the beginning we were not considering these small sample cases as a representative universe. Thus it did not make sense to study them from a quantitative view. However the two initiatives have been chosen because they were pioneers in investing in community forest management and certification. Using a qualitative approach, interviews were applied to collect some stabilized forms of behavior among the beneficiaries of the two projects.

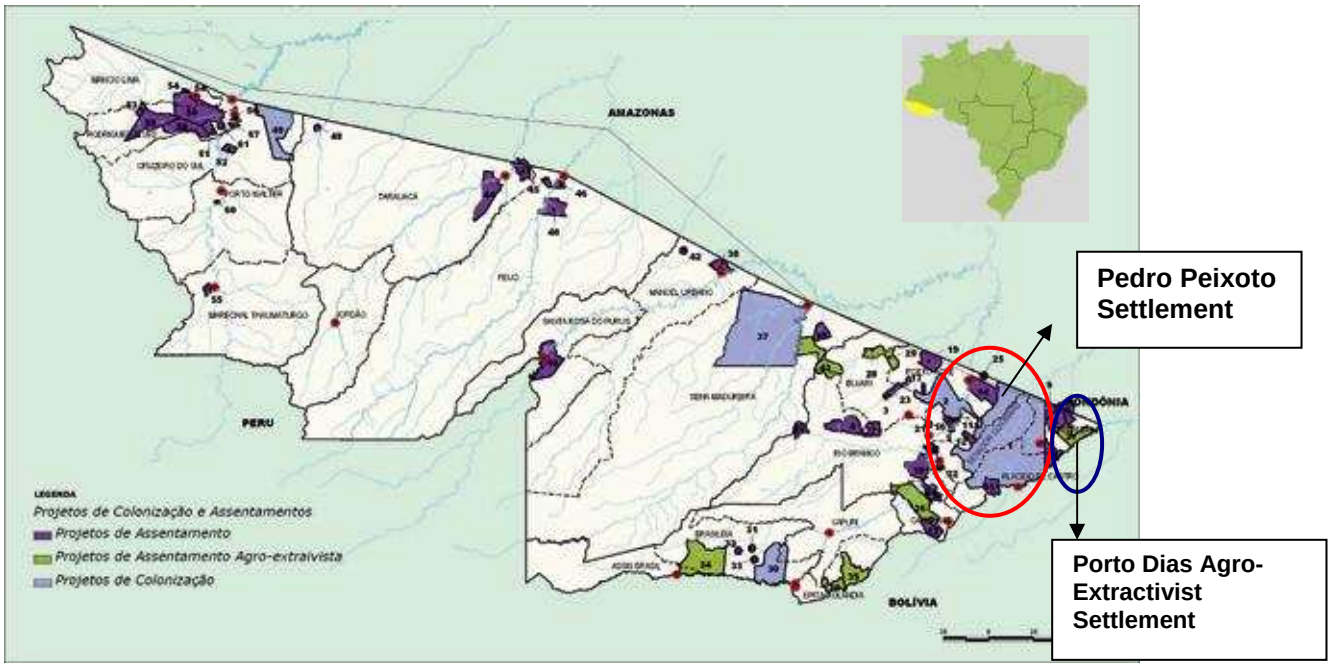
One of the projects is inside the Porto Dias Agro-Extractivist Settlement where eight rubbers tappers manage 3.900 hectares of forest. The other one is inside Pedro Peixoto Agricultural Settlement where sixteen farmers, with few tradition of forest management have organized themselves to explore together their legal forest reserves. Farmers and rubbers tappers first motivation to join to forest management and certification scheme were expectation to increase incomes in the short-term. However, they have early realized that this goal was not so simple to reach. It is thus necessary to better understand other underlying factors interfering in the decision about getting involved or not in community-based forest management certification, as it influences the long term sustainability of such alternative. After a brief description of the case studies chosen for this study (section 1), the underlying factors explaining the decision of family to join or not certification will be analyzed (section 2) and the main difficulties threatening the two projects sustainability will be underlined (section 3).

1. A brief description of two community-based forest management certification projects

Porto Dias Agro-Extractivist Settlement Project has been set up in 1989. The settlement covers 22.145 hectares and is located at around 80 kilometers of Acre State capital, Rio Branco (see map 1). According to official data, eighty three families are living in the settlement. Because it is a special settlement model, Porto Dias includes two families types: traditional rubber tappers and landless farmers from several Brazilian´s regions. Each family occupies about 300 hectares of land. Nobody has private property right

over the land. The area belongs to the State (or Federal government) and the legal instrument governing property rights is a contract firmed between the rubber tappers association and INCRA (National Institute for Colonization and Agrarian Reform) Specific rules to use land and forest are defined in this contract that can be found in the Porto Dias Settlement Use Plan. This document fixes the rules for sustainable forest management and other economic activities allowed within the settlement. The first attempts of forest management have begun in 1990. The Project has been supported by WWF and CTA (Worker´s Amazon Center), a local NGO. At the beginning, only six rubber tappers were involved with forest management for wood production. The following years, participation increased a little, reaching 13 participants. At the end of 2005 participation decreased to 8 members. Communitarian tasks are necessary because not all parcels are explored every year, only four areas are logged each year. The participants have to organize the activities together and annual profits obtained are shared between them.

Map 1: Two community-forest management at Acre State



Source: Environmental Institute of Acre State (IMAC) 2004

The Pedro Peixoto Agricultural Settlement Project is a “classic” agricultural settlement . Land property is much smaller. Each family owns 80 hectares. Private property over land is possible when farmers remain during five years on their land. In 1995, Embrapa Acre (Brazilian Enterprise of Agricultural Research) has implemented a pilot project to

promote forest management and certification among Pedro Peixoto settlers. But something unexpected has happened and put initial doubts to the project sustainability. Indeed, until 2002, the Brazilian environmental law required that fifty per cent of the farmer property in settlement in the Amazon be kept in forest. This area is the property legal reserve. But a provisional Environmental Ministry decision has changed this rule and the compulsory legal reserve area has been increased to eighty per cent. When the law was changed, Pedro Peixoto settlers had already started forest management of their legal reserves. So, Embrapa Acre and IBAMA (Brazilian Institute for Environment) have done an agreement that allows Pedro Peixoto settlers to manage and certify their legal reserve even if it was under the 80 % share law. However, this agreement only benefits the first participants and new participants should have 80 % of their land in forest. As it will be seen below, it clearly leads to problems for the project.

2. Underlying factors explaining the decision to join or not to join

In both cases, the first settlers' motivation to join was the expectation to increase their income in a short-term. But this factor was not so much decisive and it does not explain all the crucial issues behind community-forest management.

Another possible factor is underlined by Ostrom (1990). Ostrom stresses that collective action to protect and use forest resources will likely emerge when users have shared some common attributes. One of this attributes is ***prior organizational experience***. This attribute refers to the fact that users have learned at least minimal skills of organization through their own participation to other local associations or through learning from neighboring groups' organization. Such skills can facilitate the process of building and negotiating common rules to use forest on a more sustainable basis. This concept is similar to the idea of an individual social capital affecting individual´s performance in dealing with innovations regarding their environment (Narayan and Pritchett 1997). In both case studies, we found that participants with a greater number of social "knots" has a greater willingness to join the project and improve their economic performance managing together their forest reserves. For instance, at Porto Dias Agro-Extractivist Settlement Project, traditional rubber tappers were much more skilled and permeable to negotiate new contracts when it was necessary. Rules governing the resource use were

not entirely imported from NGO, they were also the outcome of the historical and political actions lived in the recent past within the settlement. At Pedro Peixoto Settlement, social strong links could be perceived only for a few individuals, which were in general amongst the leaders of the project. Relations such bonding ties are prevailing over bridging ties [2] (Woolcock 1998; Abramovay 2003:71). However, this attribute seems to influence the initial decision to join but is not so crucial.

The users perceptions of forest value and their dependence on forest economic rent seem to be more important to explain the decision to join or not to the forest management certification project. Rubber tapers in Porto Dias Settlement had shared a common vision of forest value. Profits from forest management, mainly from Brazilian nuts and rubber taping, were still important in the family income. The same shared perception was not encountered for rubber tappers children and recently set colonists. These latter show more preferences for agriculture and cattle ranching, a result in conformity with Toni analysis of new rubber tappers generation in Extractive Reserves. According to Toni (2004), time contributed to attenuate conflict period memories. Opposition against cattle ranching decreases whereas it has been in the past a strong determinant of rubber tappers fight to get right on their land and protect their natural resources. The secure return from cattle ranching and the high liquidity of cattle in the Amazon are some main determinants explaining the expansion of the activity in the Amazon (Veiga and al. 2004). In whatever place on the agricultural frontier, a producer can sell a cow for a price related to the São Paulo market. Moreover, milk production can provide a small additional and regular daily source of income (Poccard-Chapuis et al. 2003). Cattle ranching appears not only as a better economic option but also as a way to reach a better position at society (Toni 2004).

In Pedro Peixoto, the negative perception of forest value was clearly influencing the decision to abandon the forest management certification project. Changes in the environmental law leading to the increase of legal reserve requirement to eighty per cent has generated a negative incentive for forest management in the settlement. Moreover, it

[2] Bonding ties are a sort of social capital based on trust. Trust emerges from social actors' identity, shared traditions and values. It is considered as a weak form of social capital. Individuals with bridging ties can extend their relationship circle and so create more opportunities (Woolcock 1998, Bittencourt *et al* 1999 apud Abramovay 2003:71)

has been responsible for inequities among settlers: some of them have benefited from a prior agreement and have managed to keep the old rule. In other words, they are allowed to use half of their land for agriculture and cattle ranching whereas new settlers can only use 20 % of their land if they wished to join to forest management certification project. Therefore they have to agree with a situation where they have less incomes alternatives in the short -term and larger uncertainties in a long-term.

Another crucial issue is related to the problem of ***secure property rights*** over the resources, of utmost importance to create positive incentives to long term investments in forest management. Two distinct meanings for property rights are found in the economic literature. One, primarily developed by Alchian (1965, 1987) and Cheung (1969), refers to the ability to enjoy a piece of property. The other, much more prevalent and much older, is basically the right assigned by the state to individuals. Barzel (1997) designates the first one as "economic property rights" and the second one as "legal property rights". In Barzel´s definition, economic property rights refers thus to people ability to use a good (or the services of an asset) directly or to use it indirectly through trade. Property rights are not absolute and can be changed by individual´s actions. Legal rights play just a primarily supporting role.

Legal property rights over forest in the Brazilian Amazon have caused more negative incentives than positive ones for forest sustainable management initiatives in agricultural settlements and extractive reserves. The Environmental Brazilian law configuration assumes that landholders should bear the opportunity cost to preserve the forest (Veiga and al; 2004). As counterpart government offers the land ownership and the right to use the legal forest reserve according to specific rules. However, the law does not include others incentives mechanisms to benefit who decided to comply with the rules. And the region is characterized by a very low enforcement of property rights.

It leads to different perception of economic property rights among the two project´s beneficiaries. Rubbers tappers show more security and certainty of their economic right to use forest resources in Porto Dias. With larger forest areas to manage (300 ha at least) timber logging is more profitable. Besides, they can cut and clean until 30% of the total area to develop agriculture and cattle ranching. The general perception was that certification granted by FSC could improved gains because it would allow to access

new markets, even uncertain ones. Such a positive view was however threatened by others factors. In the last years, new contingents of farmers have arrived at Porto Dias Settlement, originated from other Acre State settlements and even in other Brazilian States. They had migrated for Porto Dias in search for more productive lands. They have occupied empty pieces of land or parcels abandoned by rubber tappers. Some inhabitants reported also land trade inside the settlement, a forbidden practice. The main problem is that new settlers lack forest management tradition and indeed prefer cattle ranching. Without any help from the State authorities, the traditional rubbers tappers can not avoid land invasions or make new colonist comply with the rules once they have already settled. Monitoring costs is thus increasing. Investment in forest management and certification becomes less interesting and more risky. Until 2005, it was the most important problem faced by Porto Dias rubber tappers involved in community-forest management certification.

In Pedro Peixoto, settlers have to face another obstacle regarding property rights. As already mentioned, the legal reserve law reform has created negative incentives and constrained abilities in securing economic property rights. Pedro Peixoto´s case is an example of this negative influence. Although official numbers show about sixteen participants to the project, farmers surveys revealed much less people willing to really manage their legal reserves, particularly new potential comers. In order to join the community-forest management certification project, each settler (except the ones participating since the beginning to the project) has to agree with the new reserve legal size established. It means they have to register legal reserve officially. If area has already been deforested, they have to make commitments to reforest the area. It imposes high costs in a scenario where gains remain uncertain. Even they may receive support from NGO, farmers at Pedro Peixoto Settlement have prefered to wait rather than to invest in forest management. The worst outcome expected is that the settlement forests become open access resources, since they will remain unprotected and subjected to deforestation. For example, farmers can be favored if reserve areas are cleaned by fire.

3. Others Factors mining the long term sustainability of community – based forest management certification in the Amazon

Oustide the undelying factors explaining the decision of farmers to invest and remain or quit community-based forest management certification projects, other problems are threatening the long term sustainability of these projects.

First, **external dependency of NGO´s assistance and donors** poses a serious problem. On the one hand, communities do not have the capacity to manage efficiently the project because of the settlers' and rubber tappers' low scholarity level certification process and legal forest management is a complicated task requiring a very well documented management system. It requires being able to deal with state bureaucracy and to elaborate documented plannings, maps, forest inventories, contracts and so on. In general NGO and donors pay technicians to transfer knowledge to the community. However, such technicians used to get more involved than desired in a day-by-day administration and local transfer is almost incipient. Moreover, settlers and rubber tappers interviewed insists that forest management takes so much time that sometimes they do not have the time even so for subsistence activities in their lands. Since gains from timber trade is too uncertain, many of them do not carry out the forest management plan. They do not suffer losses since investment to elaborate the plan has been made within the NGO involved and with external financing, but it completely threatens the long term sustainability of the project.

On the other hand, it is not expected that communities will pay for forest management costs and certification fees early. So donors provide financial assistance to make the projects viable during the first years. However, communities have a little understanding about costs involved. Some NGO´s and donors are not worried about improving this understanding. There is not a clear contract clausal forseeing some form of devolution of the grants. In other words, communities do not assume any financial risks. Such donations work against environmental and economic sustainability. Bad performance and low quality of wood are commom weakness at community-forest management in Brazil (Markopoulos 2003).

Environmental certification aims to decrease transaction costs between seller and buyer assuring to the last one that the timber was produced under a sustainable management plan. In the case of certified wood, market uncertainty is too strong even if demand for such quality os increasing. The major part of certified wood originated from

community-forest management in the Brazilian Amazon is traded on the domestic market. According recent studies, just in São Paulo State, the demand for certified wood could reach about 1,2 million cubic meters, or around 20% of total wood consumed in this State. Considering this number, demand is much higher than the current production capacity estimated in eight thousand cubic meters in 2005 (Sobral et al 2002;Imaflora e Smartwood 2005). However, besides these numbers, market reality is a little bit different. For instance, at Porto Dias Project, the settlers managed to sell their wood first only in 2001. There was no formal contract with external buyers. The buyer identified was from the Southeast of the country. Wood was supplied but finally the buyer decided not to pay. He claimed that the wood did not have the quality required. Without any a formal contract, sellers coud not reverse the situation. After this incident, NGO involved in community-based forest management certification in Acre State decided to spend more time to guarantee market access.

Thus, in 2002, an organization named Acre Community Forest Producers Group was created. The Group joins representatives of all certified projects at Acre State. One of the group tasks is to open new markets and negotiate better contracts. Price, quality and costs began to be discussed not only among NGO´s experts but by communitarians too.

Conclusions

Community-forest management certification is seen as an alternative to protect forest and at the same time provide complementary incomes for smallholders in the Amazon. Notwithstanding all attempts to implement and mantain community-forest management these initiatives face many bottlenecks jeopardizing their sustainability.

The prior organizational experience attribute of the participants seems to help individuals to deal better with community-forest management and certification issues, but it is not determinant. Distance between the legal rights to manage the forests (legal property rights) and communitarian's abilities to enjoy these rights (economic property rights) is more important for community-forest management certification performance. The current law configuration imposes so many costs to whom wishing to manage its legal reserve that it becomes somewhere counterproductive. Moreover, changes of the rules had the effect to induce more uncertainty in the institutional environment. Even in Extractive Reserves where economic property rights can be better exercised, traditional

population can not avoid easily land invasion. Finally, the perception of forest value is of utmost importance however, symbol of the fight of extractivist against cattle ranchers, such value is not shared by everybody and even the new generation in extractive reserves tend to forget such value. The economic performance of cattle ranching and agriculture in the region explains such trend.

Besides these factors, both community projects analyzed are strongly dependent of NGO´s technical assistance and donors financing. In fact the community can not deal alone with all the bureaucracy of the system neither pay for certification costs. In a situation of market uncertainty, financial assistance is thus necessary. But interview reveals communitarians and donors have not discussed the issues of costs and management enough. So communitarians lack information about cost-benefit balance and they have not taked account much responsabilities regarding the project success or failure. Finally the issue of market access is also crucial and need to be improved.

Community-forest management certification in the long term depends on actors capacity to face and solve the several issues discussed above. One might say that in a scale of importance: a) a negative perception of both, economic property rights and legal property rights, over forested lands play a crucial role in the decision of not to join to community-based forest management projects; b) differents perceptions regarding forest value among farmers, ancient rubber tappers and a new generation of rubber tappers living inside Extractive Reserves is a second major factor that imposes many difficulties to the initiatives performance and c) the issue of dependency of donors and NGO´s can undermine the projects in the long term. New arrangements like Acre Community Forest Producers Group can help to soften information assimetries. Early experiences with community-forest management are beginning to review some administration and business strategies in order to decrease external dependency. On the public side, authorities need to decrease the discrepancy between laws and reality in the Brazilian Amazon. This governmental action is essential to create positive incentives to legal logging and to the adoption of community-based forest management certification. Certification can help in promoting a more sustainable forest management in the Amazon, but can clearly not replace all required public interventions: without a better monitoring of property rights, of legal forest management rules, and more secure market access, certification initiatives can be seriously compromised.

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