

Perceptions of access and rights to forest land in indigenous and mestizo communities at the agricultural frontier

Lessons for REDD+ governance in the Bosawas Biosphere Reserve, Nicaragua

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Peruvian Amazon

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INTRODUCTION

Debates and recent experiences on REDD+¹ clearly indicate that governance is an important element for the successful implementation of REDD+. Not only are the technical aspects related to carbon monitoring key, but so are the institutional context and political will to clarify uncertainties within existing legal frameworks (Angelsen et al., 2012). In agricultural frontier areas, deforestation has been associated (indirectly but importantly) with weak law enforcement and a low degree of local community participation in defining rules that guide what activities can and cannot be implemented in the forest areas that they depend on.

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In many cases, these two indirect drivers have led to restrictions to local, and especially indigenous, communities' rights to access and use of forest ecosystems' goods and services (Larson and Ribot, 2010). There are concerns that land tenure and access and use rights of local communities could be limited even more when REDD+ is implemented (Streck, 2010).

Rights are associated with actions that are authorized and produced by rules. These rules correspond to those agreed and reinforced prescriptions that require, prohibit or allow specific actions of more than a single person, i.e. concern collective action (Schlager and Ostrom, 1992). In other words, rules can be viewed as the provisions allowing people to implement their rights (Schlager and Ostrom, 1992). These rules can be written, in its formal aspect, in a national or local law. However, where adequate institutions for reinforcement are weak or absent, effective implementation may depend on the informal rules that define the specific actions taken by groups of individuals living in direct contact with the resource. For example, the property right of a person over a plot of land can only exist if neighbors agree on granting it or if the person has access to mechanisms that enhance his/her ability to exclude others (e.g. through effective implementation of a law).

¹ Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

When thinking about measures to implement REDD+ and provide economic incentives (Angelsen et al., 2012), ownership rights to land become relevant. This is especially critical in most developing countries where land tenure is highly uncertain in many agricultural frontier areas (Sunderlin et al., 2010). In these countries, negotiations between the state and civil society representatives advocating for the conservation of forests or the rights of local communities (Ellsworth and White 2004, Fitzpatrick 2006) have led, in recent decades, to several attempts to restore and formalise the rights of people living in forests (Sunderlin et al., 2008). However, in many agricultural frontier areas these rights have not been effectively reinforced, even in places where statutory rights are clear and communities have titles. In this context, one of the first steps towards the establishment of a REDD+ initiative should be to clarify land rights and to ensure that rights are enforced. This is not only important for proper allocation of benefits and profits, but also for protection of those groups whose rights have been historically marginalized and who may be affected even more by control measures for forest access and use that might come into play with REDD+ (Sunderlin et al., 2010).

It is, therefore, important to analyze the formal rules (i.e. laws) relating to rights and access that are important for the design of REDD+ activities. Analysis of the differences between formally-established rights and those perceived by people directly affected in agricultural frontier areas (e.g. those tacitly accepted by local forest dwellers) can also contribute to the design of REDD+ actions that are more appropriate to the context. More specifically, this analysis can help explain the consistency between formal rights and the rules and perceptions of forest inhabitants thus increasing the likelihood of effective delivery by designing context-specific rules that account for the perceptions of local dwellers (i.e. increasing efficiency of investments) (Pagiola and Bosquet, 2009). This REDD-net article provides a qualitative analysis of the perception and knowledge of representatives of mestizos and indigenous populations on the formal and informal rights to access and use of forest land in the Biosphere Reserve BOSAWAS (RBB) in Nicaragua. This occupies more than 15% of the National territory (Cabal, 2010) and is a high priority area for REDD+ in Central America.

SOCIO-HISTORICAL CONTEXT OF BOSAWAS RESERVE

The socio-historical context of RBB is characterized by ethnic and cultural diversity given the multiple languages spoken by indigenous populations (Mayangna and Miskitu) and mestizos. The mestizos make up the majority of the population and are mainly situated in the buffer zone, although some have settled in areas of the core zone. The indigenous communities are considered as the traditional population

because they have lived within this territory since before the colonization (Kaimowitz et al, 2003). From the seventeenth century until the beginning of the twentieth century, Great Britain dominated the Atlantic Coast of Nicaragua. During this time, the indigenous communities had relative independence in the management of the area that is now covered by the RBB. Under the Somoza regime (1934-1979), the National Guard had a regular presence in this area and as part of the strategy to combat guerrilla movements, promoted mestizo rural settlements and influenced the distribution of land. The population in the area increased even further with the creation of the first road (due to the mining interest in the area in the 1950s) and improvements in basic services provided by the Sandinista government in the 1980s. Mestizo's migration from the Pacific and central regions to this area represented a major demographic change to the area, also in relation to the progress of the agricultural frontier.

After a history of tensions and conflicts between indigenous, mestizos and national and local governments at the end of the 1980s (Larson, 2010), in 1987, the Sandinista government negotiated and created the Caribbean autonomy law, which recognized indigenous rights and culture. Eventually, through a centralized process with little consultation, the BOSAWAS reserve was created in 1991 by Executive Order 44-91. Elevated to the status of Biosphere by UNESCO in 1997, this reserve is located partly in the North Atlantic Autonomous Region and partly in Jinotega department. The RBB is the largest protected area in Central America, covering around 8,000 km² of natural resources. (Kaimowitz et al., 2003; Bonilla, 2009).

Agricultural frontier in general should be understood as an area where there is a rapid transformation of forested areas to agricultural land resulting in ecologically and economically unsustainable changes in land use (Rinne, 2006). According to Browder and Godfrey (1990), frontiers as a consequence of large cattle farming and popular agricultural frontiers (i.e. smallholder farmers) prevail in BOSAWAS. Smallholder farmers are the first settlers who, once the land loses its fertility due to overexploitation, change the land use to pastures which in most cases are then traded to the large cattle farmers (Stocks et al., 2007).

METHOD

BOSAWAS Biosphere Reserve has a total area (i.e. including the buffer and core zones) of 32,159 km², representing 26.48% of the country (FUNICA, 2009). The municipalities that make up the RRB are Siuna, Bonanza, Waspam, Waslala (all of which are in the RAAN), Wiwilí, El Cuá and Bocay (which are in the Jinotega). The buffer zone landscape is dominated by productive areas and important forest ecosystem patches that represent a network for the connectivity of species of RBB as well as for other ecosystems in the country



(SETAB-MARENA, 2003). This study was conducted in the municipalities of El Cua, Waslala and the indigenous territory of Awas Tingni Sauni Umani in the Waspan municipality. We focus on three areas along a transect running from the RBB buffer zone where agricultural frontier is mainly lead by mestizo people (in the Waslala and El Cua municipalities), to an area closer to the core zone of the park (in the Waspan municipality) where Mayangna indigenous populations prevail and deforestation has been much lower. More specifically:

1. Waslala is located at 13°20' north latitude and 85°22' west longitude coordinates. It has an area of 1,329 Km² and a population of 43,676 inhabitants (49% men and 51% women).
2. El Cuá is located in the center of the Jinotega department at 13°22' north latitude and 85°40' west longitude coordinates. It has an area of 776 Km² (710 Km² in the buffer zone and 66 km² in the core area of Peñas Blancas and Cerro Kilambé protected areas). It has a population of 43,305 inhabitants (52% men and 48% women).
3. The Awas Tingni-Sauni Umani indigenous community, or AMASAU territory, is located in the northwestern part of the Waspán municipality, 45 km from the county seat. It has an area of 73,394 hectares. It has a population of 343 families (1,600 people) with an origin in the ancient Tuburús settlement. Their main language is Panamahka, although they also speak Miskitu (Wangki type) and Spanish, though less fluently.

The methodology comprised the collection and synthesis of primary and secondary information. Literature sources were reviewed to identify the formal rules that define the application of communities' rights. Subsequently, this information oriented us in the consultations with local actors like Waslala and El Cua municipal governments, decentralized government institutions, nongovernmental organizations and representatives of indigenous and mestizo communities. Semi-structured interviews and focus group discussions have been conducted, with questions focusing on the current situation and the risk of resource degradation, perceptions of access rights and use of forests and the impact of formal and informal rules on deforestation.

RESULTS

Perception of the status and risks of forest resource degradation

Among the goods and services that the forest provides to the Mestizos, they mentioned forest products (including wood and firewood), medicinal plants and food (wild animals and fruits). They also recognize important services provided by forests to community life, with particular emphasis on higher availability of water resources compared to areas outside the forest, as well as purification of air and protection against landslides. Indigenous people consulted also perceive the forest as an important means for survival, as well as other benefits such as recreation, spirituality and contact with their ancestors through sacred sites. They emphasized that there is a biological connection between Earth, the Trees, Water and Air which is essential for ensuring the existence of future generations.

Both groups report the perceived reduction in the availability of forest and water resources. For example, the indigenous people report that there is a decrease in the amount of water flowing in the Wawa river crossing their land. In this respect there is also agreement that the most critical resource in the future will be water. It was acknowledged that this can trigger conflicts between water users and the owners of the sources, as is already happening in a Waslala community where the owners of the source are demanding a payment from water users to conserve the resource. Moreover, both groups agree that these conflicts may occur more frequently in communities inhabited by mestizos due to the advance of the agricultural frontier and more evident forest degradation. Variations in climate are reported to have been experienced by both groups who, in the past twenty years, reported experiencing drastic changes in climate patterns (affecting precipitation, temperature and wind). These changes have raised concerns to the point that they identify climate change as an imminent threat for the availability and access to key resources provided by forests.

In this sense, the Indigenous people stated that the uncontrolled encroachment of the agricultural frontier into formerly forested areas increases their vulnerability to climate change. An example is the quote by indigenous Mayangna when discussing the benefits lost due to deforestation: "during the passage of Hurricane Felix in 2007, the trees provided a physical barrier, the reason why there were no casualties in our community, trees cushioned the damage".

Concerning the underlying causes of forest degradation, the groups cited: i) lack of economic incentives for forest owners; ii) the lack of application of formal rules governing the use of forest resources; iii) low supervision exercised by relevant government agencies; and iv) the limited sensitivity and environmental awareness of many mestizo farmers.

Use and access rights to forest resources

Perception of rights

Mestizos mentioned that in their understanding the use and access rights to forest resources is that granted by the statutory law which indicates what can and cannot be done. However, there are different perspectives as some in this group mentioned that there is no rule because property law gives authority to the landowner to decide what to do. In general, the prevailing perception is that the access and use rights to forest matches with the property right title (which most mestizos own).

The indigenous representatives held a different understanding of their rights, defining them as those that provide them with the faculty to enjoy the use of what is inside their lands (above and below the soil) and that are enforced by the fact that their ancestors that have always lived there. Although indigenous communities have always been owners of the territory they inhabit now, they believe that they have struggled² to legalize their rights through the application of formal rules as indicated by the demarcation and titling of the territory (Larson, 2010). The recognition of their territory and the creation of formalized community structures have been strategic to promoting the defense of their homeland and their forests.

In the indigenous territory, the communal property regime, where all people have an equal right to resources within the territory, prevails. Despite having won the legal dispute, the indigenous people still argue that there are barriers to access forest resources because the central government retains control over forest concessions in their territories. Another significant barrier is the presence of settlers in their territory who cut down forest and are involved in the sale of land to other settlers who do not follow indigenous rules of "coexistence with nature."

Participation in the definition of formal rules

Mestizos are aware of the existence of formal rules, such as the often cited law 217 (General Law on Environment and Natural Resources) that guides the access to and use of forest, though they largely ignore its contents. They stated that ignoring the contents of this law makes them vulnerable to the manipulation of representatives of public authorities. The indigenous peoples' fight to secure formal recognition of their access and use rights to forest land has promoted a need to know and rely on formal rules that exist at national and international level. For example, the case of the indigenous Mayangna lawsuit against the state of Nicaragua at the Inter-American Court of Human Rights (IACHR) and its ruling in favor of the indigenous population was instrumental in the creation of the law 445, aimed at demarking and titling of indigenous

lands. For this, they had to appeal to international treaties and domestic laws, namely: Law 28 (the Atlantic Coast Regions of Nicaragua Statute of Autonomy), Law 217 (Environment and Natural Resources Law), Law 475 (Citizenship Law) and Law 445 (Indigenous and Ethnic Communities Property Regime demarcation and titling of the Autonomous Regions of the Atlantic Coast of Nicaragua and the Bocay, Coco, Indio and Corn rivers).

Both the mestizos and the indigenous community reported ignoring the existing formal rules established by municipal governments for the protection and use of forest resources, and were ambivalent as to whether the national or municipal governments are currently designing new formal rules. The indigenous representatives expressed particular concerns that the central government were preparing a law or decree that would require them to live together with the settlers in their territory through the legalization of these 'invasions'.

Mestizos claimed ignorance of the mechanisms that enable them to participate in the design of formal rules issued by the municipal and central government, but consider that the incorporation of communities is critical to the success of the rules. In this regard they mentioned that if there was effective participation for the community, they would know about rules and might even establish their own sanctions and become involved in implementation and monitoring. They also stressed the importance that local statutory rules be reviewed and approved in collaboration with communities and widely disseminated so that everyone is aware of them. Initial efforts in this regard were mentioned by representatives of the municipal environmental units, as a local official notes: "The municipalities in the 'association of municipalities in the Peñas Blancas protected area' (AMUPEBLAN) are making efforts to involve local communities in the definition of rules, these efforts can still be very limited, which is the reason why they are not perceived by the communities participating in the study".

The indigenous community considers their participation important in the definition of laws or local rules. In this respect, they see themselves as the owners of forest resources in their lands which gives them the right to present their point of views on relevant management decisions.

Perceptions on the application of formal rules

The mestizos perceive there is a poor application of existing formal rules to regulate the use and management of forest resources. They attribute this fact to the low capacity of local government and the forest rangers to control the irregularities prevailing in the community, for example, higher volumes of timber extraction than that contained in permits provided by the authorities. Similarly, they mention that environmental crime reports are rare because the community prefers to avoid

² Their struggles to defend their territory and obtain land titles started from 1990, when the government (Violeta Barrios de Chamorro) provided 62.000 ha as a grant to a Korean multinational corporation (Finley-Brook and Offen, 2009), later in 1995 the President Arnoldo Alemán returned a logging concession granted to SOLCARSA within the traditional land of the community. This last concession was the trigger for leaders to intensify their struggle. Claims against the state of Nicaragua exhausted domestic legal authorities, but received no answer; for this reason they brought a lawsuit to the Inter-American Court of Human Rights (IACHR) ruling in favor of the community on August 31, 2001.



conflicts. Indeed, they believe that even when reports about illegal activities and reports on offenders are made, there is no evidence of punishment for those who violated the rules and attribute this lack of enforcement to political affiliations. The group felt that local and decentralized public authorities (e.g. MARENA and INAFOR³) have limited capabilities to implement and monitor the formal rules while recognizing efforts made by the local MARENA bureau.

Indigenous people share the perception of limited institutional capacity for the enforcement of formal rules. In this respect, they mention the invasion of mestizo settlers in their territories and the associated deforestation as evidence of this. They also mentioned the provision of forest concessions by public authorities without consulting them, as is prescribed by the law.

In terms of mechanisms to promote the design of informal rules (e.g. those locally recognized and enforced), mestizos did not mention any, while the indigenous community mentioned the role of community meetings where they identify and ratify common rules as well as the necessary reinforcement strategies for effective implementation⁴.

DISCUSSION

We found strong agreement in the perceptions expressed by the indigenous and mestizos on the importance of forests for the provision of goods and services to local communities. However, mestizos' statements appear to contradict with their production practices which typically result in deforestation (Eriksson, 2004). An important difference is that the indigenous community mention a greater number of aspects relating to the importance of forest conservation by adding the spiritual and ancestral connotation (i.e. the link between land and their ancestors), as well as basic products for survival, such as food and medicine. Indeed, indigenous peoples' discourse of living by and for the forest is supported by evidence that deforestation trends have been significantly lower in their land than in mestizos' area (Stocks et al., 2007).

As mentioned by the interviewees, the resources provided by forests are finite and their decreasing availability is likely to generate more competition and conflict – even more so where institutions are weak (Edouard, 2010) as in agricultural frontier areas (Eriksson, 2004; Stocks et al., 2007). In these areas, the disconnect between formal rules and specific actions taken by local dwellers is associated with the mestizos' lack of knowledge and environmental sensibility, but also with the limited institutional capacity to enforce implementation of rules (Stocks et al., 2007).

This lack of control gives way for settlers to colonize and take possession of the land, which is subsequently converted in the de-facto formalization of a property right. This is understood as an authorization to implement all sorts of practices while there is no legal document backing this, because the ownership rights guaranteed by the civil code lack legality if it is not recorded in the land registry (Bonilla, 2009). Meanwhile the indigenous community have no concept of private land ownership and have customary and statutory laws that assign access and use rights, but face a series of legal contradictions due to public authorities providing logging concessions to private companies in their territories without consultation. This can also be attributed to the low political representation of indigenous people in regional and municipal councils, which are generally dominated by mestizos (Brunnegger, 2009).

The monitoring and observance of the rules in the forest sector is difficult to achieve due to low institutional capacity, corruption and manipulation by public authorities (Kaimowitz et al., 2003; Mairena, 2007; Putz and Nasi, 2010). In this sense, although Nicaragua has an updated and modern regulatory framework (MAIRENA, 2007) the perception of all those consulted is that there is a limited capacity to guarantee its correct application. Some perspectives provided by participants in our survey coincide with those of other authors (for example, Putz and Nasi, 2010) indicating that direct economic incentives (e.g. through PES and REDD+) could help counteract deforestation in this context by providing resources to strengthen capacity. However, this may not be as

3 MARENA is the National Ministry of the Environment and INAFOR is the National Institute for Forest Resources.

4 For example, once drafted, the rules are placed in publicized and supported by the public authority by punishing those who do not comply.



easily implemented because effective, efficient and equitable application of direct financial incentives requires a strong institutional framework and the definition of access rights and use of forest land (Engel et al., 2008).

The knowledge and perceptions of formal rules defining access and use rights to forests of both consulted groups also have direct implications for the concrete actions undertaken in their respective territories. For the mestizos, the ignorance of the contents of formal rules is associated with and reinforced by the perception of total land rights (i.e. no use limitations involving its deforestation) that is reinforced by the tacit social acceptance given by neighbouring communities (De Janvry A. and Sadoulet E., 2000). Contrastingly, for the indigenous communities, knowing the content and how to use formal rules is a key way for them to protect, at least in theory, their rights from invasion by external agents such as settlers or companies. Recent experiences in the 1990s indicate that the processes of consolidation of rights in the AMASAU indigenous territory have been characterized by legal conflicts, as with the case of fraudulent provision of large forest land concessions to private timber companies (Wessendorf, 2011). To address these conflicts local communities needed to appeal to statutory laws and force involvement in negotiations at the highest levels of central government (IACHR, 2001).

People recognize the importance of their participation in the definition of rules for access and use of protected forests consistent with the literature which recognizes participation as a key feature of good REDD+ governance (Corbera and Schroeder, 2011). However, the results of our consultations indicate that neither the mestizos nor the indigenous are normally informed about, and much less consulted in, the definition of rules defining access and use right to forests. This has not only happened in the case of rules defined by local governments. For example, the national government in the past proposed a law to protect the rights of indigenous property, to comply with a World Bank conditionality, but without prior consultation with indigenous communities and their allies (Larson and Mendoza-Lewis, 2009). Indeed, evidence shows that, in general, in Central America most of the discussions and preparations of draft laws remain in the sphere

of political parties, leaving civil society, indigenous peoples and rural organizations marginalized (Edouard, 2010).

Governance at the agricultural frontier has been problematic. Some conditions have been created that strengthen the participation and empowerment of indigenous peoples in the definition of rules of access and use of forest land. An important example is the law 445 of 2003 which recognizes the traditional organization of indigenous rights, grants them the rights and the institutional framework for the demarcation and titling of their lands and allows them to participate in formal definition of formal rules. However, an evaluation of the actual processes resulting from this law indicate that some important issues still need to be addressed such as i) low representation of indigenous people in public administration (e.g. mayor, state department or congress) where rules are discussed and decided; ii) scarce political will; and iii) corruption in the proposed intergovernmental entity that administer the titling and demarcation of indigenous lands (Larson, 2010). However, some promising experiences have been implemented in nearby municipalities where representatives of indigenous institutions are an important part of public administration bodies and significant environmental commissions responsible for defining access and use of forest land (Larson, 2002).

On the other hand, in mestizo communities, organizations like community environmental commissions, watershed committees, citizen councils, or forest rangers are not recognized by law and have weak representation and organization, and suffer from disagreements among their politically-opposite members. The relationship of these organizations with the institutions at various scales (local council, departmental or national) relies on actors who can build bridges of information and influence and, therefore, have a say on the design of formal rules (Bastiaesen et al. , 2006).

In this context, it is noteworthy that the citizen participation law (Act 425), giving citizens the opportunity to participate in public policy formulation on access and land use (Hevia, 2007) has not resulted in clear direct advocacy experiences, as most of them only receive information after decisions are made or are simply asked to participate in consultations but without the possibility of influencing the law design (Santandreu, 2007). This gap between the rights defined by national policies and how they are implemented in practice and understood or accepted by local communities results in a limited understanding of the formal rules or even its rejection due to an unrecognized legitimacy (Edouard, 2010). Moreover, the limited participation in policy formulation and the related lack of knowledge opens space for manipulation by government bodies in charge of their implementation (Larson, 2010).

These results indicate that governance problems and the advance of the agricultural frontier could directly or indirectly affect the success of REDD+ in BOSAWAS. Two fields of action that arise from this study may be relevant to the design of REDD+ initiatives in agricultural frontiers in other parts of the Latin American region. The first concerns the

promotion of knowledge of existing legal frameworks to the rural populations in these territories. This can help align the perception of relevant actors and local and national policies as a first step towards the implementation of measures that can be effective in reducing deforestation (Kanowski et al., 2011).

The second concerns the importance of effective participation, where citizens are able to influence decisions, in the design of laws defining access and use of forest land. In this sense it is worth noting the strong consistency between what was found through our consultations and those elements identified by prior consultations in Nicaragua (Ortega and Castillo, 1996) and what the literature promotes: that citizen participation is crucial to the design of formal rules needed for effective implementation of REDD+ initiatives (Forsyth, 2010).

Addressing these two aspects is of paramount importance, considering that in many countries that have entered the preparation process for REDD+ (such as those supported by UN-REDD and Forest Carbon Partnership Facility (FCPF)), experiences of effective participation has been very limited and problematic with respect to representation in decision-making (Thompson et al., 2011). Nicaragua's Readiness Preparation Plan (RPP), prepared for the FCPF (MARENA, 2012:31), recognizes this failure and calls for a greater inclusion of local communities in consultations to ensure that rural residents have a say in the definition of operational rules of the national REDD+ scheme. At the agricultural frontier, where this study was located (as in other countries that have advanced in the REDD+ process), the appropriation of formal rules and the process of design by concerned actors has the potential to enhance their legitimacy and their effective implementation (Corbera and Schroeder, 2011).

Finally, REDD+ can open opportunities to improve effective governance in terms of local ownership and participation of forest lands that are located in agricultural frontier areas (Angelsen, 2012). In this sense experiences in neighboring countries, such as Costa Rica, indicate that the process of designing REDD+ has opened space for effective participation to new actors. Here, the indigenous peoples have been benefitting for more than a decade from the direct incentive payments for ecosystem services (PES) but were not part of the design of the implementation rules. The national REDD+ design process has opened a space for their participation through the creation of a mechanism for indigenous PES and institutional participation of indigenous representatives in the decision-making body of the PES scheme (Vignola and Aymerich, 2011).

CONCLUSIONS

This study provided insights on the differences in perceptions of access and use rights to forests of culturally different communities in the agricultural frontier of BOSAWAS. The historical processes these communities have gone through clearly influence the institutional context in which the present

formal and informal governance of the forest resources operates. The literature, as well as the population consulted, demonstrates that participation of local people in decision-making in the design of rules and the associated rights arising from them is needed to support effective implementation of REDD+ in agricultural frontiers.

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About REDD-net

REDD-net is an international knowledge forum for southern civil society organizations through which they can access information about efforts to Reduce Emissions from Deforestation and forest Degradation, share their own experiences and help to build pro-poor REDD projects and policies. REDD-net is a partnership between Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), the Overseas Development Institute, RECOFTC – The Center for People and Forests and Uganda Coalition for Sustainable Development. REDD-net is funded by Norad.



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