

Community-based enforcement for successful conservation

Lessons from the Peruvian Amazon

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Key recommendations for practitioners

In order to design and implement successful community forest management (CFM) initiatives in tropical forests, it is essential to pay close attention to the existing social, organizational, and biophysical contexts of the forests and communities that will manage them. Specifically:

- Prioritize working with communities that already have active communal management and enforcement structures in place, either for forest management or other purposes.
- Support communities to use locally relevant strategies to strengthen and adapt these mechanisms for the purpose of forest management and conservation.
- Support communities to strengthen their rights over the forest, through strengthening informal, semi-formal or formal mechanisms that are respected and considered legitimate in the local context.
- In a context in which the government does not actively enforce forest conservation (as is often the case in tropical forests), promote formal or informal relationships between communities and local government officials and agencies.

Introduction

The interest of policymakers and practitioners in initiatives to promote community-based management and conservation of tropical forests is ever growing, because of the potential synergies between biodiversity conservation, carbon storage and improved livelihood conditions. Yet, many of these initiatives have not been very successful at protecting the forest. Many times, this is because the practitioners and communities have not been able to adapt the design of the initiative to the specific socio-economic, cultural, political, and ecological context. For outsiders, understanding the local context can be rather challenging.

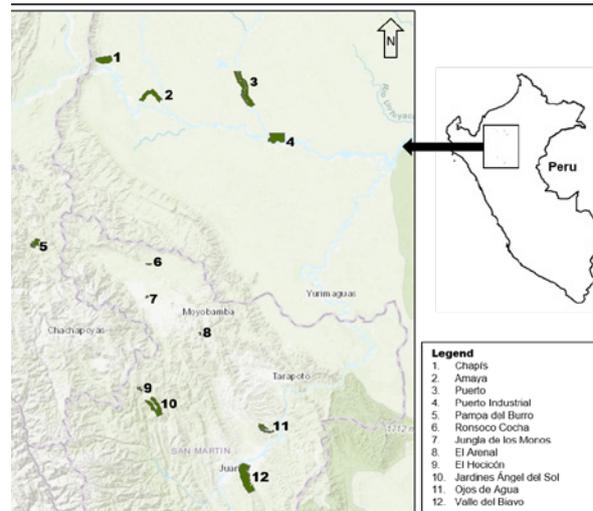
This briefing paper focuses on the question: To what extent do communities need strong community-based enforcement institutions, formal rights over the forests, and good

relationships with local government agencies in order to implement successful conservation and forest management initiatives? To answer this question, I studied twelve initiatives of communities that voluntarily manage their forests, independent of government policies and external finance. Each of these communities has a unique socio-economic, political and ecological context and distinct motivation to protect the forest.

The twelve initiatives are located in the northern Peruvian Amazon, in an area ranging from the basis of the Andean foothills in the Loreto region to the mountain forests in San Martín and Amazonas, from 0 to 2,300 m a.s.l.. The area harbours a diversity of ecosystems, including *Mauritia flexuosa* L. palm swamps, moist lowland forest, evergreen montane forest, and cloud forests. Deforestation rates vary from very low in the palm swamps to high and very high in the lowland and mountain forests. Just like with other conservation initiatives, the levels of success vary. I measured success using deforestation scores for each community (Box 1), and found that eight cases were partially or fully successful, while four were partially or fully unsuccessful.

Community-based enforcement institutions

In more remote locations where public administration and law enforcement are largely absent, such as in many tropical forests, communities rely heavily on their own enforcement institutions. In the context of CFM, these institutions surveil the boundaries of their forest, monitor the forest condition and its authorized and non-authorized users, and sanction rule-breakers. The importance of such institutions for the success of CFM initiatives has only quite recently been recognized by the scientific community, and they often receive little attention in CFM initiatives from



The 12 voluntary conservation initiatives in northeastern Peru included in the study

donors, government agencies, and non-governmental organizations (NGOs). There is an almost infinite variety of community-based enforcement mechanisms that can exist, all with their own logic, based on existing traditions and habits, and on the specific external environment (Charnley et al. 2007).

Tenure security

Tenure security, the certainty that the community's rights to the forest are recognized by others and protected in the case of challenges, is of critical importance for effective community-based forest management and conservation. Donors, government agencies, and NGOs often equate such tenure security with a formal property title, which they consider essential for successful CFM initiatives. In practice, there are many examples of untitled communities that successfully protect their forest and of titled communities that fail to do so. As governments tend to be weak in tropical forest areas, patchworks of formal, semi-formal and customary tenure arrangements tend to have stronger local acceptance and enforcement mechanisms, resulting in better tenure security

Box 1. Deforestation scores

To define deforestation scores, we used the before-after-control-intervention (BACI) method. This method compares deforestation results in the intervention area (here: the community conservation initiative) with those in a control area (here: the geographical administrative district in which the intervention area is located), before the conservation initiative started (between 2003 and 2015) and while it was running (Bos et al. 2017).

and contributing to more successful forest conservation and management (Kerekes 2010).

Local government support for enforcement

The effects of government enforcement on CFM initiatives are debated: some argue it complements community efforts, while others claim it crowds out local efforts and is counterproductive (Coleman 2009). In forest areas in Peru, the government is rarely involved in the enforcement of conservation rules in communities. Yet, some communities manage to build formal or informal relationships of trust with local government agencies and can rely on these when they need help handling an enforcement situation with community members or external rule breakers. Practitioners rarely consider strengthening these types of relationships in CFM initiatives.

Results

Our study shows that robust **community-based enforcement** is indispensable for effective conservation. All successful conservation initiatives in the study have a robust community-based enforcement mechanism, while all unsuccessful initiatives have a weak mechanism. The successful CFM initiatives in used the following enforcement mechanisms:

- A conservation committee supported by a *ronda campesina* (Box 2).

- A conservation committee under supervision of a general assembly and supported by community police.
- A conservation committee under supervision of a general assembly and a multi-community conservation unit.
- A general assembly supported by the *ronda campesina*.
- A conservation association.
- A conservation association with support of a *ronda campesina*.
- A *ronda campesina*.

While the robust mechanisms are clearly diverse, all have strong systems for both monitoring and sanctioning. In some cases, monitoring takes place mainly from the village, as the borders are easily overseen, or the only access is from the village. In others, frequent patrolling is needed. Regarding sanctioning, it appeared that social pressure from community members is particularly important. Sanctioning only becomes more severe if violations are repeated or result in major infractions. Physical forest occupation — e.g. through clearing paths, installing signs, and building outposts — is also a key element of robust enforcement mechanisms in the Peruvian Amazon. The more infrastructure communities have in their forest, the stronger their informal ownership claim. In addition, some communities complicate entry by creating semi-protected forest areas adjacent to the conservation area.

Box 2. *Ronda campesina* conservation areas

The *ronda campesina* is a traditional patrol system in *campesino* or peasant communities in northern Peru. It was created during the guerilla war in the 1990s and consists of members of all families in the community. Members patrol the communal lands, maintain social order, administer justice, and protect the interests of the community. The *ronda* has remained in place in many communities to compensate for the absent government.

Most *rondas* are currently legally recognized. Yet, the government does not recognize *ronda campesina* conservation areas. Even so, the enforcement mechanisms that the *rondas* provide are generally strong, and their voluntary conservation initiatives tend to be successful.



Farmers' from the community La Primavera build a control post in their conservation area 'Jardines Angel del Sol'. (Photo: Ignacio Auger)

Robust community enforcement and formal forest rights

The results indicate that formal rights over forest lands do not automatically result in successful conservation, and that successful conservation is possible without formal forest rights. The successful CFM initiatives included the following seven mixes of tenure arrangements (with decreasing levels of formality), all adapted to the specific socio-economic, political, and ecological contexts of the forests and communities:

- Private conservation areas in titled communities.
- Conservation concessions over forests on public lands.
- Forests on public land within a semi-formal municipal conservation area.
- Informal peasant-patrol conservation areas in untitled communities.
- Forests on public land with a private conservation contract between a community and NGO.

The first two of these tenure arrangements are (rather) formal, while the last three are (rather) informal. The arrangements, whether formal or informal, help communities to successfully protect their forests, as they receive local acceptance and as the communities put great effort in enforcing them.

When communities with strong enforcement mechanisms to protect their forest also have formal rights over their forest, conservation outcomes tend to be particularly positive.

In two cases the establishment of conservation concessions enabled communities to keep illegal loggers and settlers out of the conservation area. In another case, the creation of a private conservation area allowed community authorities to stop the longstanding tradition of giving out forest to newcomers to start a farm (see Box 3).

Robust community enforcement and support from the local government

The study revealed that when communities with robust enforcement mechanisms have access to assistance of local government agencies (often through pre-existing formal or informal relationships with these agencies), community forest management is more likely to succeed. This is the case, independent of the formality of the tenure over the community forests. In some communities, enforcement institutions find it difficult to sanction community members, because of strong social ties between families. In others, external rule breakers resist to respect the authority of community institutions. In both these types of cases, sanctioning by an external actor is a practical alternative. The successful CFM initiatives had informal

Box 3. Ronsoco Cocha

Ronsoco Cocha is a community forest managed by an indigenous community in the San Martin region. Community members produce coffee and have their vegetable gardens. The community has an official indigenous land title since 1999. It started protecting the community forest soon after receiving the title. Yet, in accordance with local traditions new community members were still allocated land in Ronsoco Cocha to make agricultural fields. In 2015, the community officially registered Ronsoco Cocha as a private conservation area. This made it possible for the community to break with the tradition of allocation of forestland for agricultural use. Deforestation dropped from an average of 2.86 ha. per year to 0.



Members of native community Paz y Esperanza (San Martin region, Peru) meet to discuss their private conservation area 'Ronsoco Cocha'.

relationships with and received enforcement support from three types of local authorities:

- The regional environment authority.
- The juez de paz (district judge) and district governor (see Box 4).
- The local police.

Insights and lessons learned

Robust community-based mechanisms to enforce conservation rules are indispensable for CFM initiatives to succeed. In addition, some government back-up, in the form of local government support for enforcement and/or formal rights to the forest, significantly increases the likelihood of success. Formal ownership over forests can help community-based conservation, but it is no prerequisite for success.

When selecting communities for forest management and conservation initiatives, NGOs and other implementing agencies should ideally select interested communities with existing community monitoring and sanctioning structures, either for forest management or other purposes, which

can serve as a basis for the conservation enforcement mechanisms.

When engaging with selected communities, practitioners should aim to:

- Refrain from imposing specific management and enforcement infrastructure, but instead support communities to come up with and/or strengthen and adapt their own monitoring and sanctioning mechanisms.
- Promote the strengthening of the formal or informal relationship between communities and local government agencies, so that communities can request the support of local government agencies when they need help handling an enforcement situation with community members or external rule breakers.
- Refrain from pushing for forest ownership regularization using blueprint solutions. Instead, support communities to strengthen their formal and/or informal forest rights in a way that increases their tenure security in their specific context, e.g., through placing boundary markers or constructing watch posts in the forest.

Box 4. Amaya

Amaya is a community forest, including a creek, located in the palm swamps in the Loreto region. Eight mestizo communities manage Amaya together, even though none has formal rights over the area. Community members pay an entrance fee, which allows them to fish in the creek for household consumption. Outsiders are not allowed to use the creek and forest. Monitoring duty in the conservation area rotates between all fishermen. A board of three community leaders oversees day-to-day issues and manages the fund from the entrance fees. This fund has enabled the board to request assistance from the district judge (juez de paz) and governor on several occasions, when outsiders were illegally fishing or logging in Amaya. Using the fund, they could travel to the district capital to denounce the rulebreakers and finance travel costs of the juez de paz or governor, so that these could visit Amaya, and ultimately, sanction the rulebreakers.



Mauritia flexuosa (aguaje) palm in Pastaza Marañon Forest Basin (Loreto region, Peru)

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Photo first page: Coffee farmers and ronderos from the community La Primavera (Amazonas region, Peru) monitor their conservation area 'Jardines Angel del Sol'. (Photo: Ignacio Auger)

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