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The importance of forests for the development of Indigenous Peoples in Costa Rica: Will REDD+ be a help or a hindrance?



Tropical forest is relied on by Costa Rica's indigenous communities for income and a range of environmental services.

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INTRODUCTION

The United Nations Framework Convention on Climate Change (UNFCCC) 16th Conference of the Parties (COP), held in Cancun in December 2010, highlighted the importance of Indigenous Groups participating in the design of international climate change agreements. In Latin America a large proportion of potentially eligible REDD+ land is currently owned by these communities. Of the 690 million ha of forests in Latin America, 155 million ha are in hands of communities and indigenous peoples (RRI 2009). In 2005, 10% of Costa Rican forest lands were owned by indigenous communities, an area which contributed to 4% of the country's total carbon sequestration.

DISCLAIMER

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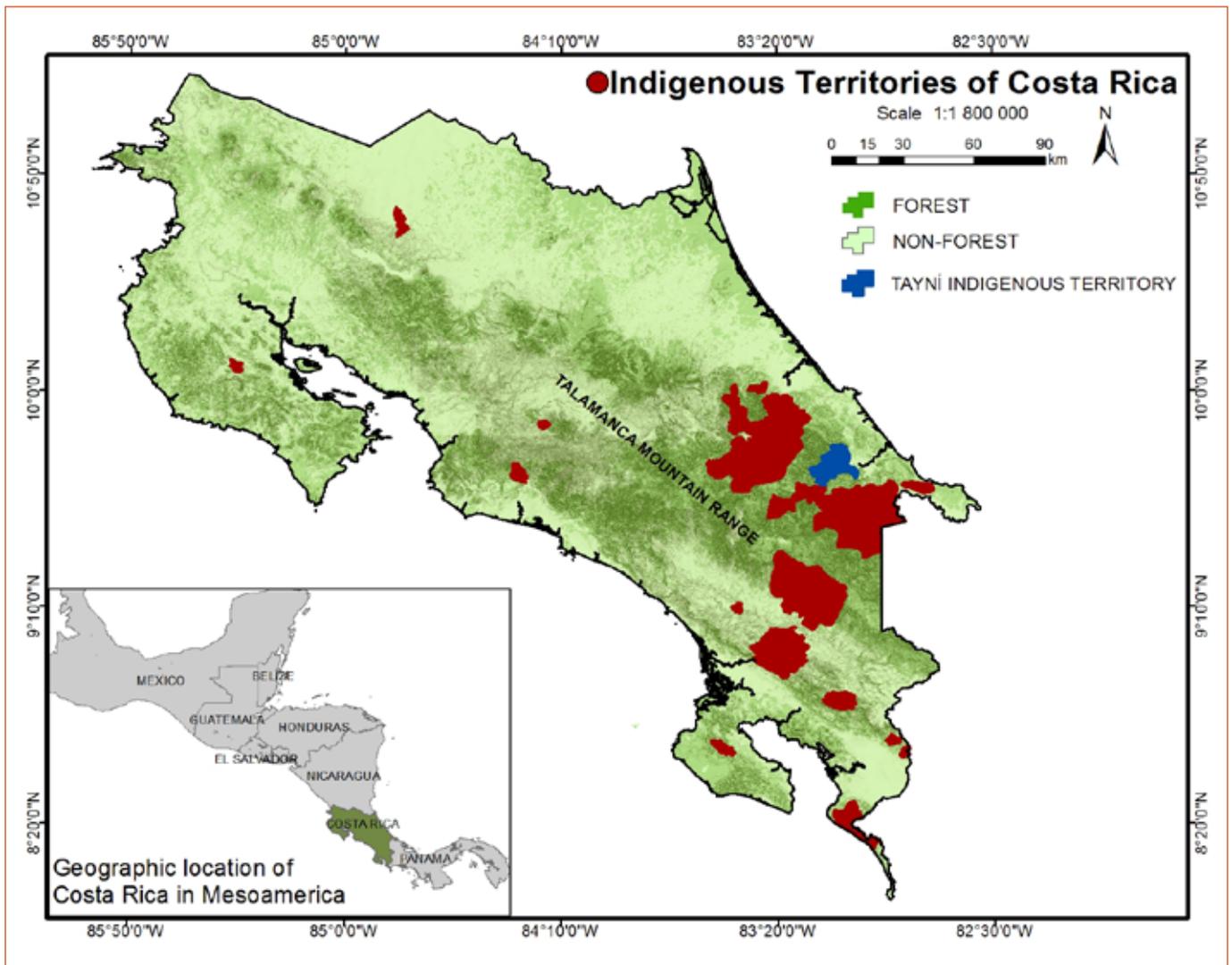
This paper examines the role of forest resources and the associated Payment for Environmental Services (PES) in the development of indigenous people in Costa Rica using a case study in the territory of the Cabecar-Tayni. This case study is of particular relevance given the fact that i) social and development aspects are increasingly emerging in the REDD+ debate, ii) that the PES has been formally adopted as part of the National REDD+ Strategy of Costa Rica (MINAET and FONAFIFO, 2010) and iii) that the actual PES scheme provides an important proportion of financial resources to local indigenous communities such as those of the Cabecar-Tayni. REDD+ is likely to influence the use of forest resources by local communities, and it is therefore important to consider what role these forest resources play in the development of Indigenous communities. This will provide insights into how the adoption of the PES scheme in REDD+ in Costa Rica (i.e. stated in the R-PP presented to the FCPF of the WorldBank) might influence the use of forest resources for development. In this respect, the objective of this case study is to highlight lessons for the establishment of an equitable REDD+ scheme in Costa Rica.

METHODS

Study Site

Our case studied the Cabecar indigenous group located in the Tayni territory. Recently, the Cabecar-Tayni have thrived economically due to the implementation of forestry development projects, like agroforestry plantations for timber

Figure 1. Indigenous Territories in Costa Rica



production, forest harvesting and increasing participation in forest conservation programs like the PES. For this reason we selected the Cabecar-Tayni as a case study as it presents an ideal example of a successful indigenous group that has sustainably managed its forest resources to achieve specific development objectives. Despite the Cabecar-Tayni's recent economic growth, future growth may be obstructed by internal organizational conflicts and inefficient communication with institutions at the National level.

The Tayni territory is located in the "Huetar" Atlantic Region in Northeastern Costa Rica (9°40'-9°46' N, 83°01'-83°10' W; Figure 1), where it extends over 16,216 hectares (4,9% of all indigenous-owned territory in Costa Rica). Elevation ranges from 44-1418 m.a.s.l. (meters above sea level), topography is very steep and pronounced peaks may reach 800 m.a.s.l. in short distances (Ocampo and Duro, 1994). Mean annual temperature is 26.9°C and mean annual rainfall is 3,800 mm. Twenty-three communities comprise the Cabecar-Tayni; Gavilán, Cerere, Boca Cuén and Calverie being the largest populations. Total population has been estimated at over 2,500.

Survey Instrument Design

A literature review of studies on the Cabecar-Tayni territory (Ocampo and Duro; 1994; López, 2004; Madriz, 1999; Mideplan, 2002; Tiffer, 2006; Alpózar, et al., 2008) and surveys with key informants were used. Key informants were selected according to their relevance in the decision-making processes at different scales and, in consequence, their influence on the development of the Cabecar-Tayni. Three different types of key informants were consulted:

1. Indigenous Development Association (ADII) Board Members (n=3): community leaders, acknowledged by the community, who have decision-making power.
2. Family leaders (n=13): manage in the field community forest resources following traditional indigenous practices.
3. Government representatives (n=7): policy-makers directly influencing Cabecar-Tayni's economic development.

The Tayni territory is largely inaccessible. Only seven out of the twenty-three communities have year-round road access. Five of these communities were selected for data collection: Cerere, Gavilán, Jabuy, Alto Jabuy and Boca Cuén

(i.e. the context of these indigenous communities represents the higher connection to public services for this indigenous territory).

All 16 community members surveyed are field workers and have a low level of education (i.e. most up to primary school) and make small salaries. Government representatives surveyed are comprised of personnel working for FONAFIFO (National Forestry Financing Fund), MINAET (Ministry of the Environment, Energy and Telecommunications), representatives of CCSS (Costa Rica Department of Social Security at the Ministry of Health), and Coopeservidores R.L. (responsible for project execution on behalf of the Costa Rica Housing Mortgage Bank (BANHVI)).

RESULTS AND DISCUSSION

This section is organized as follows. First there is a description of the Cabecar-Tayni organization and problems compromising their development vision. Next there is a general description of the use of forest resources, emphasizing the PES scheme and finally there is an analysis of how the REDD+ process in Costa Rica could successfully increase the participation of indigenous communities, thereby providing an additional forest-based economic development opportunity.

Community description

The Tayni territory is administered by an Association of Comprehensive Indigenous Development (ADII) which serves as representative of the Cabecar-Tayni members. This is a legally recognized organization by the Costa Rican government. It owns the land tenure rights inside the territory and is in charge of providing welfare to the indigenous families. Internal communities are organized into working committees, which organize its residents to undertake projects that solve communities' daily problems, however lack of interest in participation means that they are often inactive. Projects designed and implemented in the territory are managed by internal laws ruled by the ADIIs' board, which have different ways to be implemented. Small projects are discussed only internally by the ADIIs' board, while larger projects are discussed with the community through a general assembly (i.e. annual budget from the PES funds go into the ADIIs' account and its expenditures are generally debated with the community).

Taynis' ADII has launched several successful campaigns to improve education infrastructure, install water purification systems, and improve the condition of roads. Further, 240 new houses were built in the past two years and more efficient electric grids were installed. Nevertheless there are serious problems that compromise the stability of the community. Lack of potable water is a main concern for community members (69% of all people interviewed). Efficient aqueduct

systems also stand out as a main concern since this is a practical solution to low water availability in the drier months. In communities without these systems people often walk for two hours a day to fetch water. Current aqueduct systems are inefficient, costly to maintain and in need of constant repair.

Health care also constitutes a major problem for them (37.5% of all people interviewed). Administrative problems in Valle de la Estrella Health Area (which services a population of nearly 17,000 inhabitants (CCSS 2007)) resulted in the closure of the Basic Team on Comprehensive Health Care (EBAIS) at the beginning of 2011. The EBAIS provides medical services to indigenous people inside their territory and the closure meant that medical consultations were severely affected. Common health difficulties in the communities are due to asthma and dental problems (Kattia Fallas, personal communication, July 7, 2011).

Despite the efforts made by the indigenous members, their organization has failed to respond to the challenge of dealing with their development in terms of the general welfare. The major causes of this phenomenon are related to i) general problems of public policy management in Costa Rica, ii) legal restrictions on access to forest resources in their territory (e.g. ban on round wood commercialization for indigenous territories), iii) social and cultural organizational weaknesses limiting their capacities to achieve specific community objectives, and iv) historic colonization of their culture and lands (exploitation by all kinds of traders have promoted misery and apathy for their own cultural and economic empowerment).

Forest Resources

Approximately 54% of economic production in the Tayni territory is generated from the cultivation of coffee, grains, cocoa, plantain, cattle husbandry, forestry and fisheries. The production systems are adapted to a tropical climate where commercial plant species are cultivated within a forest matrix (Alpizar et al. 2008). Daily work is spent mostly in the fields cultivating their own food supplies, conducting domestic chores- including construction- and working as labor for banana companies out of their territory.

The management of the Cabecar-Tayni forests provides basic needs such as food, health, shelter, utensils and the preservation of certain cultural traditions. Slash-and-burn in small areas of forest called "abras" are often practiced for cultivating basic grains and tubers such as rice, beans, corn, squash, pineapple, sugarcane, cassava, taro and yam. Tree crops that are also cultivated by the Cabecar-Tayni are cocoa (*Theobroma cacao*), coffee (*Coffea arabica*), diká (*Bactris gassipaes*) and guaba fruits (*Inga edulis*).

Other forest resources are used for craft-making (baskets, bags, rope, bows and arrows), firewood, and medicines. Poisonous sap is extracted from *Hura crepitans*, *Paullinia* sp. and *Euphorbia* sp. for fishing. Medicine is also obtained

Figure 2. Transportation of round wood after certified sustainable forest management



These operation sites had been certified by the National standards of Sustainable Forest Management established in the regulation of the National Forestry Law.

from *Passiflora* sp. *Smilax* sp, *Ipomea* sp., and *Quassia amara*. Most of these species occur naturally in forests in the region (Ocampo y Duro, 1994). Timber is also harvested by indigenous members. In 2006, 2,700 m³ of timber was felled and collected, representing a revenue of approximately \$270,000. The main timber species are: *Vochysia guatemalensis*, *Cedrela odorata*, *Cordia alliodora*, *Terminalia oblonga* and *Manilkara zapota* (Figure 2).

Forestry-based development projects within the Tayni territory significantly contribute to the community member's income. For example, the Housing Mortgage Bank (BANHVI) recently executed a \$3.2 million project to fund the construction of wooden houses (Figure 3). These houses were built by members of the community, with timber from their own forested lots, and on average each participating member earned between \$1,500 and \$4,000. Despite this successful example, it demonstrates a state-dependent relationship, where government is in charge of buying the wood and benefiting the population with the construction of houses.

Costa Rica's Payment for Environmental Services Program (PES): The PES received more than \$132.9 million in international and national funding in the 1997-2009 period (Government of Costa Rica, 2010). The National Budget contributes with \$78.2 million from fuel and water taxes. International funding has been provided mainly by the Ecomercados I and II projects. Other funds come from the Global Environment Facility (GEF) projects (part of a loan and a non-reimbursable fund) and the Kreditanstalt für Wiederaufbau (KfW) grants. Together, they sum up to \$54.7 million (Government of Costa Rica, 2010).

In 2009, all indigenous territories had jointly registered over 60,000 hectares of protected forests and more than 650,000 planted trees in the PES program, securing close to

\$16.9 million between 1997 and 2004 (Ana Lucrecia Guillón, personal communication, November 1, 2010). Particularly, the Cabecar-Tayni group leads forest acreage registered in the PES with 30,466 hectares since the beginning of the program. These funds constitute the majority of their annual budget and sometimes the ADIIs' only source of income.

Since 2003 the Cabecar-Tayni secured almost \$1.5 million from PES (Figure 4). Presently, they have 3,600 hectares registered under the PES conservation category and over 360 000 trees under the PES agroforestry system category (it is noteworthy that almost 45% of these trees have been planted by women who are increasingly gaining empowerment in the community's decision making processes). Here, a widely-accepted rule establishes that anyone wishing to participate in a tree-harvesting project must ensure planting at least 20 trees per each clear-cut tree.

The PES funds directed to the Cabecar-Tayni have enabled the communities to improve their livelihoods. Sergio Morales, Vice-President of the ADIIs' Board, stated that "some of the PES funds have been used to purchase water pipes and thus temporarily solve water availability issues. Further, it serves as an emergency fund when families lose their crops to river floods. Funds are also employed to help families travel to hospitals and cover their medical bills. Finally, funds are used for funerals, the annual community meeting, general repairs and road construction and maintenance".

On roads, Morales affirmed that "...in order to construct part of our main road (close to 5 kilometers in length and which was PES funded in 2010) we proposed to aggregate a fraction of the PES funds, which would normally be distributed among all communities. If a community did not benefit directly from the construction of the main road (for example, because it is located on the other side of a river) we would prioritize the community for receiving PES funds next year."

Figure 3. House, 42m², made from *Cedrela odorata*. It fits 4-6 people. Ten to 20 trees are required for its construction.



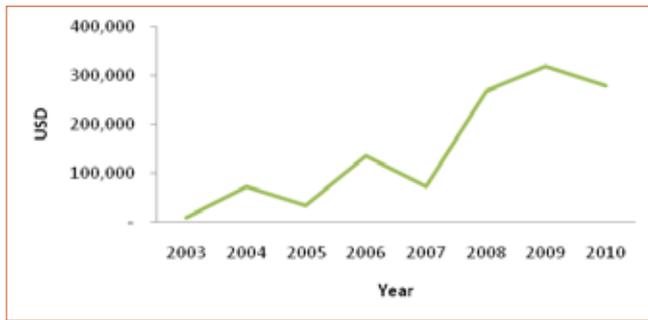


Figure 4. Cabecar-Tayni annual PES budget (\$) since the beginning of the program.

However, according to FONAFIFO's estimations, most PES funds are projected to finish in 2012. Subsequently, community leaders fear that future community development projects may be jeopardized. There is, therefore, skepticism among indigenous communities to fully rely on PES funds for supporting their administration. The Costa Rican government is more positive about continuation of the PES scheme. Dr. Edgar Ortiz, representative to the Costa Rican Government to the United Nations Framework Convention on Climate Change Negotiations, stated that "funding from Ecomercados is additional to the funds from the national budget, so the program would not be too compromised without them". In fact, Dr. Ortiz expects that REDD+ funds will fill the gap left by the Ecomercados funds: "REDD+ funds in Costa Rica will replace the Ecomercados funds for the current PES program. It would not, therefore, be a new project, and the main goal of the PES program which is to increase the negative rate of deforestation (i.e. increase forest cover in Costa Rica) would still be maintained. This means that the REDD+ funds would be used to finance the PES, and thus keep the current project structure".

RELEVANCE FOR AN EQUITABLE REDD+ DESIGN

Our case study provides three interesting discussion points for the improvement of equity in the adoption of the National PES scheme as the primary method of REDD+ implementation in Costa Rica. The first is motivated by distributional concerns regarding the need to increase flexibility in access rules of the current PES scheme inside the indigenous territories. The PES program illustrates part of the organizational problems mentioned before: only 25% of the interviewees knew at least something about the program despite the fact that it has been established in the territory for almost 8 years. These somewhat informed interviewees corresponded only to members of the Board of the Indigenous Association and only one lay community member (out of 13 interviewed).

This situation indicates scarce communication, at least on the topic of PES, and also that important opportunities

to capitalize these funding are being lost due to the current management of PES funds. Indeed, the use of these resources by the Board responds to communities' requests which are mainly related to social infrastructure (e.g. roads, water pipes, etc.) while nothing is invested in capacity building or in strengthening their organizational and information management infrastructure.

The second discussion point refers to procedural concerns in the definition of rights to forest resources. As this case study shows, forest resources provide a cultural, economic and social resource for indigenous communities. An equitable REDD+ regime in Costa Rica should ensure that in its operational phases, the cultural and land tenure concerns of indigenous communities are included in the execution of REDD+ - PES contracts. Another procedural concern (related to the former) regards the empowerment of local communities to make the best of the REDD+ funding opportunities. Weak organizational capacities of local communities hinder their active participation to ensure fair deals in REDD+ negotiations. In this respect, an equitable REDD+ regime should consider strengthening their negotiation capacities by devoting resources to their capacity building, organizational capacities and the creation of institutional spaces to allow their timely and legitimate interaction with national decision makers, especially in the definition of priorities and rights to forest resources of local indigenous communities.

The third discussion point refers to broader consideration of the use of forest revenues for development of Indigenous communities and the need for greater public investment in services in their territories. Indeed, for a variety of historical, social and political reasons few investments in social and physical infrastructure have been devoted to these territories. As our consultations and review shows, PES funding has been invested in the construction of infrastructure such as roads to reduce serious impacts of extreme rainfall events or water pipes to ensure adequate access to potable water. In order to produce equitable outcomes, national efforts to negotiate the REDD+ regime with indigenous communities in Costa Rica, as in other parts of the world, should thus ensure that its benefits can be used to build on socially-guaranteed development baselines. In other words, indigenous communities should, as much as possible, be able to use REDD+ revenues as they wish and it should not be seen as a substitute for public money to fund infrastructure commonly provided for rural communities in similar contexts in the country.

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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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