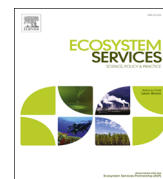




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Assessment of environmental payments on indigenous territories: The case of Cabecar-Talamanca, Costa Rica



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ABSTRACT

The Costa Rican Program of Payments for Environmental Services (PPES) is a global pioneering financing policy mechanism for the promotion of forest protection and expansion. This program currently transfers a significant amount of money to indigenous territories; however, its performance has not been comprehensively evaluated. In this study we assessed for the first time in a comprehensive manner the performance of this national program in an indigenous territory. We created and validated, with the aid of a panel of experts, an evaluation instrument that contains social, economic, and environmental criteria and indicators. After applying the instrument in the Talamanca-Cabecar indigenous territory (TCIT), the PPES obtained 48.7 percent, accomplishing significant results in aspects framed within the goals of sustainable development. We found that the TCIT allocates most of the payment money into capacity building, which has resulted in substantive improvements in their negotiation, management, and leadership skills; this in turn helps to attract investments from other public and private entities, protecting and promoting its natural capital. As similar programs are adopted in multiple countries based on the Costa Rican example, this study provides an important methodological contribution to enlighten future environmental and socioeconomic financing policies aiming to support indigenous territories.

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1. Introduction

After World War II Costa Rica experienced rapid economic growth mostly due to the adoption of macro-economic import-substituting industrialization (ISI) policies. These policies promoted replacing foreign imports with domestic products, particularly within the agriculture and livestock sectors, resulting in the expansion of the agricultural frontier. By 1994 about 37 percent the national territory was deforested (Miranda et al., 2006), and Costa Rica was experiencing one of world's highest deforestation rates throughout the 1970s and 1980s (Gaupp, 1992; Jones, 1992).

Since then, several policies have been implemented in order to deter further deforestation. Among the most recent and participatory efforts stands the 1996 Forest Law (No. 7575), which not only banned clearing forestland, but also set the basis to the first country-wide program of payments for environmental services in a developing country (Balvanera et al., 2012; Pagiola, 2007). The main objective of the Costa Rican Program of Payments for Environmental Services (PPES), as originally designed, aims to

protect and promote forests by compensating land owners for the provision of benefits from environmental services. In this paper we use the term environmental service instead of ecosystem service because it is embedded within the official name of the program; and it refers in its general sense to the benefits provided to people by ecosystems (Maes et al., 2012; Millennium Ecosystem Assessment, 2005), although this definition is still evolving (Braat and de Groot, 2012). The program's secondary objective lies in poverty alleviation, although it has achieved mixed results over the years (Grieg-Gran et al., 2005; Miranda et al., 2006; Pagiola et al., 2005, 2008).

Indigenous people are important stakeholders of the Costa Rican PPES given the high concentrations of forest located in their territories and the prevalence of poor households among them. The program currently devotes about one fifth of its annual budget to indigenous territories; however, its performance has not yet been analyzed comprehensively. Therefore, it is imperative to measure the performance of the PPES in these indigenous territories. This is also important because their unique socio-political and cultural environment suggests an alternative approach. For example, since forestland is communal, the large majority of the payments within territories are received and used by their governing body, and not by individual land owners as usually occurs outside of indigenous territories. Also the worldview and

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connection that indigenous communities have with the forestland make the potential commoditization of the payments a sensitive topic. Finally, despite the legal recognition of their land since 1977, historically indigenous people have been marginalized and subjected to land invasion, which along with marginal economies makes these territories among the poorest in the country. Thus, our two main research questions are: a) What are the key elements to incorporate in the evaluation of the PPES in indigenous territories? b) Is the PPES promoting sustainability in indigenous territories?

The Talamanca-Cabecar Indigenous Territory (TCIT) has been an active participant since the program was established. Our main objective is to analyze the performance of the PPES in this indigenous territory between 2007 and 2011, a five-year span in which contracts were signed for the protection of approximately 3600 ha of primary forest.

In the following section we briefly present the nature of payments for environmental services and focus our attention on describing their importance for indigenous territories. After the methodological approach is presented, we discuss the performance of the Costa Rican program in the TCIT using social, economic, and environmental criteria and indicators. We expect that this information will serve as an additional input in the design and implementation of similar national and international financing policies, transferring important specifics to indigenous territories.

2. The Costa Rican program of payments for environmental services (PPES) and indigenous territories

The payment for environmental services program is an innovative market approach to conservation. The underlying strategy to stop deforestation evolved from previous incentive policies born in the 1960s to one of the recognition for the protection and provision of environmental services (Landell-Mills and Porras, 2002). This new approach is theoretically based on several market-based notions such as: a) the polluter pays principle, where, for example, all vehicle drivers are taxed at the gas station for their resulting emissions to partially finance the program; b) the internalization within market prices of the benefits provided by ecosystems; such values are now included in potable water and electricity utility bills; c) a direct payment to compensate land owners for the services provided (Gómez-Baggethun et al., 2010; Muradian et al., 2010). Although it still does not work as theoretically intended due to strong governmental intervention (Fletcher and Breitling, 2012), significant progress has been achieved through a decentralization process of agencies that managed the country's natural resources and an increasing participation from civil society (Ibarra and Hirkuri, 2007). As discussed by Muradian and Rival (2012), optimal functioning of such programs will highly depend on a coordinated arrangement of governmental, market, and community-based institutions and policies.

Established in 1996 with the latest Forestry Law, the National Fund for Forestry Financing (Fondo Nacional de Financiamiento Forestal, FONAFIFO) and the National System of Conservation Areas (Sistema Nacional de Áreas de Conservación, SINAC) are the state institutions responsible for implementing the PPES in Costa Rica. Because this program has been described in detail in other articles (e.g., Miranda et al., 2006; Pagiola, 2008), we focus our attention on its performance evaluation and its relation with indigenous territories.

2.1. Evaluating the Costa Rican PPES

Despite its proliferation, overall programs of payments for environmental services have remained untested in developing

countries (Wunder, 2006). With multiple confounding factors, such as banning the clearing of forestland, and complex environmental and socio-economic attributes to measure, it is difficult to clearly determine the actual level of success of the Costa Rican program. In 2011, using four case studies, the Costa Rican National Accountability Office (Contraloría General de la República, CGR) officially assessed the overall performance of the program for the first time since its creation in 1997. Their approach aimed to assess FONAFIFO and SINAC as the managing institutions and the impacts of the program itself. Their report highlights the fact that neither managing institution has developed its own set of indicators to evaluate the program. In terms of program impacts, their main finding indicates that during the 1997–2010 period there was a 16.63 percent improvement in the overall situation nationally due to the program. The generalization of this result to the whole country is problematic because their evaluation sample did not include indigenous territories.

Over the years most of the scrutiny of the program has evolved around its contribution to forest conservation and poverty reduction. Regarding forest coverage, it is tempting to attribute the PPES with reducing deforestation rates in Costa Rica from one of the world's highest to one of the lowest in just two decades. Most studies support the hypothesis that there is higher forest coverage in the territories participating in the program (e.g., Arriagada et al., 2012; Sierra and Russman, 2006; Tattenbach et al., 2006), although there is also testimony from land owners that they could have protected the forest despite the program (Miranda et al., 2006; Ortiz Malavasi et al., 2003).

Case studies evaluating socioeconomic impacts of the PPES show mixed results. For example, Muñoz (2004) found that the program was important for peasants in the Southern Osa Peninsula, while Miranda et al. (2006) found that even though the direct payments were not viewed as a sufficient source of income in the Northern Region, the payments helped to support organizational mechanisms promoting the cooperation and sharing of responsibilities on forest issues. Because FONAFIFO and SINAC have sought the participation of the largest number of small and medium-sized forest owners, by default rural and poor areas have received most of the payments. In theory, these payments would increase peasants' welfare by raising their purchasing power, and by providing more time for other income generating activities and leisure (Muller and Albers, 2004).

In terms of management, the Costa Rican PPES is globally considered as a conservation success story, although the program is not without its problems. First, the program has not been effective at targeting the optimal areas considering their opportunity costs (Ferraro, 2008; CGR, 2011; Wunder et al., 2008). As a consequence, payments might go to lands that are not threatened or lands with little environmental value (Arriagada et al., 2012). Similarly, payment discrimination does not allow for differences in both the level of service provision and the opportunity cost of providing services (Pagiola, 2008; Wunder et al., 2008). Fortunately this situation is changing, and the prioritization of areas for the year 2012 followed a more formal point system. Second, monitoring tends to be restricted to land use change, instead of verifying changes in the actual provision of the environmental services. Usually, deficient control mechanisms and intermingling environmental policies result in few sanctions (Ibarra and Hirkuri, 2007). Finally, both management institutions (i.e., FONAFIFO and SINAC) lack a formal evaluation instrument of the program in order to monitor its impact (CGR, 2011).

2.2. PPES and indigenous territories

With increasing participation in the PPES, indigenous territories are important payment receivers. Together, all indigenous

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