

Paper published in

Morales, M., Naughton-Treves, L., y Suárez, L. (Eds.).
2010. **Seguridad en la tenencia de la tierra e
incentivos para la conservación de bosques.**
ECOLEX. Quito-Ecuador.

(In English)

Morales, M., Naughton-Treves,
L., and Suárez, L. (Eds.). 2010. **Security in land
tenure and incentives for forest
conservation.** ECOLEX. Quito-Ecuador.



This document was generously supported by the American people through the United States Agency for International Development (USAID), under the terms of the TransLinks Cooperative Agreement No.EPP-A-00-06-00014-00 to the Wildlife Conservation Society (WCS). TransLinks is a partnership of WCS, The Earth Institute, Enterprise Works/VITA, Forest Trends and the Land Tenure Center. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States government.



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This work was funded with the generous support of the American people through the Leader with Associates Cooperative Agreement No.EPP-A-00-06-00014-00 for implementation of the TransLinks project. The contents of this report are the responsibility of the author and do not necessarily reflect the views of the United States government.

Land Tenure Center

HOW MUCH DOES LAND TITLING COST?

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How much does land titling cost?

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Secure property rights to individually-owned agricultural land—through land titling and registration—should increase agricultural productivity, labor use, and efficiency of land market transactions. But, as Jaramillo and Kelly (1997) point out, tenure security needs to be complemented with measures that increase the demand for labor in rural areas (e.g., intensive labor agriculture), increase urban labor opportunities, reduce or at least detain land concentration, and reduce under-utilization of productive land. In addition, studies of land titling have found that they do not increase access to agricultural credit for smallholders, thus failing to generate investment in production and improvements for that sector of producers. Finally, if state institutions (cadastre, registry, judicial, and police systems) are not able to enforce property rights, titles may not actually increase tenure security.

There is little systematic information about the outputs of titling and registration projects beyond the number of titles issued and registered. What most can agree on is that often the time needed to actually achieve the coverage indicated in the project proposal is much longer and more expensive than the amount budgeted. Both of these factors depend on the context in which the titling project is undertaken (e.g., type of land records in existence, quality of records, conflicts encountered, trained personnel, infrastructure in rural areas), the approach (whether title registration or deed registration), and the political will of central and local authorities.

When determining the cost of titling, one wants to look at the minimum set of tasks involved in titling and registration: parcel delineation, mapping, titling, and registration. Unfortunately, available information on costs is often in terms of the project budget, not in terms of titling and registration activities. Nonetheless, there have been efforts to tease out the costs of titling and registration. Much of this effort has been driven by new and emerging technology in titling and registration, and the desire to determine whether the investment in new technology improves quality and decreases costs in the long run.

The best comparison of costs was done in the early 2000s by titling experts who systematized cost information for several titling projects in their regions of expertise (Burns et al. 2006 and Barnes 2002). Table 1 contains the results from these and other attempts. Unless otherwise indicated, the cost per parcel includes pre-fieldwork as well as post-fieldwork tasks, in addition to the fieldwork of titling and adjudication itself.

One of the earliest comparisons of titling costs was done Grenville Barnes in Honduras and St. Lucia in the late 1980s.

The first set of countries shows that in the 2000s the per-parcel cost varies between US\$10.55 and \$55.69, a 1:5 ratio. While this is a wide variation, the costs are low compared to those of the 1980s when titling and registration cost over US\$100-200. Nevertheless, the cost of legalizing rural parcels is an expensive undertaking. If landholders are not motivated to keep registration records updated when subsequent transactions and transfers are made, this initial investment is quickly devalued.

Table 1. Titling and/or Registration Costs per Parcel

Country (years)	Cost per parcel (US\$)
Armenia (1990s-2000s)	13.35
Kyrgyzstan (1990s-2000s)	10.55
Moldova (1990s-2000s)	46.41
Indonesia (1990s-2000s)	16.30
Thailand (1990s-2000s)	24.21
El Salvador (1990s-2000s)	29.74
Peru (urban) (1990s-2000s)	12.68
Peru (rural) (1990s-2000s)	55.69
Source: Burns et al. 2006	
Ecuador (2000s)	100.19 ^a
Source: Barthel 2007	
Peru (urban)	32.73 ^b
Cambodia (2000s)	7.00 ^c
Sri Lanka (2000s)	32.00 ^c
Source: World Bank 2007	
Trinidad & Tobago (late 1990s-early 2000s)	1,064.00 ^d
Bolivia (1998-2002)	181.40
Peru (urban) (mid-1990s-early 2000s)	12.66
Peru (rural) (late 1990s-early 2000s)	46.68
Source: Barnes 2002	
Honduras (1980s)	130 ^e
St. Lucia (1980s)	214 ^e
Source: Barnes 1990	

^aThis cost includes only cartography, cadastral sweep, & development of SIGland; does not include adjudication & titling.

^bRegistration only of previously titled parcels.

^cNot clear what activities, in addition to titling, these costs cover such as mapping and registration.

^dRegularization was sporadic, contributing to high costs.

^eCosts include parcel delineation, mapping, and titling—not registration.

Titling in rural areas has been largely undertaken on individually-held agricultural land parcels where increased investments and returns are expected to recover the costs of titling and registration. Common resource areas and community lands may be titled as common property where the perimeter of the community or the common resource area is drawn, titled and recorded to protect that land and its resources from outsiders and the state. Conventional titling (titling of

individual household parcels) of indigenous territories is not appropriate because tenure security of these parcels is generally not an issue.

Literature Review

The role of land tenure in PES/REDD schemes

Sven Wunder (2005) defines payment for environmental services (PES) as: a voluntary transaction where a well-defined and measurable environmental service is being “bought” by an environmental service buyer(s) from an environmental service provider(s) if, and only if, the environmental service provider secures environmental service provision (conditionality). In contrast to most other conservation programs,¹ PES (and REDD², reduction of emissions from deforestation and forest degradation) uses economic incentives³ to negotiate and deal with resource owners and managers without changing their land tenure or removing them from their (private or communal) land. The land tenure concerns include access to resources and tenure security in areas where property rights over most land and resources tend to be communal or state-owned even though agricultural land may be privately managed.

While the land tenure systems in forested areas is of primary concern in PES and REDD schemes, the surrounding socio-economic context also plays an important role in determining what is happening in forested areas. Inefficiently allocated productive resources, such as agricultural land, in areas neighboring forests can push populations into the forest. Policies or programs that decrease tenure security or that discourage agricultural investment among smallholders can also cause migration into forested areas in search of livelihoods.

Tenure systems in forested areas are often local and customary with little influence from statutory legislation. Much forested areas are often considered to be unoccupied and/or owned by the state. In some countries, indigenous populations have successfully demarcated their lands while often the state retains some rights to subsoil resources such as minerals and oil.⁴ Whether state-owned or locally owned, for all practical purposes, local populations administer forestlands because government institutions do not have the resources to manage forests well.

Clarity over land and resource rights is crucial. In frontier forested areas where it is often unclear who, including the state, has rights over what resources and where the boundaries are, deforestation may occur even though the cutting down of trees is illegal. Institutional constraints to PES are common, particularly land tenure constraints where the rights holder of the land from which the environmental service is being purchased is not definitively determined.

¹ Such as state command and control regulations, sustainable forest management, integrated conservation and development projects, and social markets systems. Another system based on monetary payment is land acquisitions for conservation.

² A REDD is a multi-level PES that can be set up between countries; between private sector and countries; between a national government and local government; between national government and local managers (Bond et al. 2009).

³ This effort to “market” environmental goods would seem inappropriate, particularly in forested areas where markets are not developed. In addition, often, there is only one buyer (the state) and/or one seller (landowner) for land-based resources: a market price cannot be determined based on one buyer and/or one seller.

⁴ For example, in Bolivia, Law 1715 (1996) recognizes indigenous territories (called Tierra Comunitaria de Origen, TCO), demarcating and titling each one those territories as a TCO.

Where land is considered abundant and occupied/used by the poor, PES can be an effective and equitable conservation mechanism if the judicial system is willing and able to assume the transaction costs of enforcing the PES contract. More or less equitable recurrent payments are attractive for the buyer (not the seller) and high upfront payments make the buyer lose leverage (Wunder 2008).

Weak state institutions and inappropriate policies can work against PES effectiveness. If land administration institutions do not have a strong presence and do not support local officials and local governance, a PES scheme may not be sufficient to protect the forest. Policy issues that can undermine PES schemes include (a) government concessions of forested areas to elites and (b) agricultural policies that promote marginally beneficial crops and/or trees that require deforestation (Bond et al. 2009).

Jaramillo and Kelly (1997) contend that increased tenure security for individuals—that is, private property—does not necessarily reduce deforestation rates as modeled by some authors such as Mendelsohn (1994). In Latin America, for example, even if land is titled, clearing the forest and establishing pastures continue because it is a profitable activity and forests do not generate income.

Role of gender in PES

The use and management of natural resources, including forest resources, are differentiated by gender. Women tend to use these resources for household and community needs while men use them for their own personal needs (Agrawal et al. 2006). Their control over forest resources may also differ from that of men's as women's rights over land and forest are often less robust. There is the risk that inclusion/exclusion criteria of PES programs may tend to exclude women if they are not identified as stewards and direct users of the ecosystem in general and the forest in particular (Swallow et al. 2009). Their exclusion may result in their needs (and possibly those of the greater household) not being considered and met and their knowledge not included in the design and implementation of the program. Just as important, their exclusion may also result in their inability to have any decision-making power of the revenue that flows to the community and the households of the PES program.

Thus, the inclusion of women and allowing them full participation in PES programs has implications for the program, on the one hand, and the households and community, on the other. Their knowledge of forest resources and of the uses of forest resources by community members is needed for a more informed design of the program. Their use of forest resources also needs to be considered and fairly compensated by the PES program. And finally, their role as natural resource stewards can be a valuable input for PES programs (Westerman, Ashby, & Pretty 2005).

PES and common property regimes

The management of forested resources as common property⁵ can be effective. (This is in contrast to agricultural land where individual property is considered optimal for incentives and efficiency.) Traditional and indigenous tenure systems for the management of natural resources allow the group to capture economies of scale.

⁵ Common property is defined as the exclusive joint ownership and use of resources and the prevention of outsiders from using those resources (Jaramillo & Kelly 1997)

It appears that common property regimes for forest resources work best where there are *low* migratory pressures and where these regimes and local communities are recognized and respected, that is, legitimized. Rapid population growth, greater integration into the market economy, and technological changes may weaken common property institutions and lead to open-access regimes (Jaramillo & Kelly 1997).⁶

A review of 13 case studies (Bond et al. 2009) of schemes to reduce emissions from deforestation and forest degradation (REDD) across four regions shows that PES has not led to weakening of land tenure security (in some cases has even strengthened tenure security) and revealed little evidence of elite capture at local level.

With regard to livelihood and poverty, on the other hand, it was found that first generation PES schemes in Latin America did not benefit poorer farmers, particularly those who did not own land (Bond et al. 2009). Subsequent adjustments to the program, however, made them more inclusive and ensured that poor families were targeted and allowed to participate. Collective contracting made it possible to include small-scale farmers with informal land tenure, thus reducing individual transaction costs. All national-level PES schemes made concerted efforts to include poor and marginalized groups. Bond et al. (2009) conclude that there have been small and modest impacts on livelihoods but no direct impacts on poverty reduction as yet.⁷

Another study in Mexico focused on the *ejido* in a rainforest area as a spatial and decision-making unit, and how the *ejido*, as a cultural and social unit influences household and collective participation (Kosoy, Corbera & Brown 2008). Farming system structure greatly determined the ability of rural household to participate in PES, jointly with secure land tenure, investment and technical capacities. Not surprisingly, farmers with highly productive land are less motivated to participate in PES than farmers on marginal land.

Another important and collateral finding is that *ejido* assemblies played an important role in creating consensus around the use of the forest commons; in transferring knowledge from authorities to the people (knowledge transfer mechanism); and in promoting participation, particularly in *ejidos* with low organizational skills. There were important differences in collective rules between participating and non-participating *ejidos*: those *ejidos* that had already come to an agreement regarding protection of forestlands agreed to participate in PES while those who had never considered protection of their forests did not participate. The residents of the former group of *ejidos* were more aware of the indirect current and future benefits of the forest. In addition, three out of four of the *ejidos* that participated in PES invested in collective goods and all four agreed that future PES income should be invested to improve land productivity and establish new productive activities.

Land tenure and governance in Andean forests

In the Amazon areas of the Andean countries, two types of populations inhabit forested areas, indigenous communities and resettlement communities. The tenure and governance systems of these two populations are also different. Indigenous communities tend to utilize forest resources

⁶ Jaramillo and Kelly (1997) argue that agricultural research, extension, and services should be oriented toward agricultural areas with high population density, not forested or marginal areas that will only attract more population and cause greater soil degradation and deforestation.

⁷ No gender analysis was done as part of the equity analysis, only local elite capture.

in a sustainable manner since their subsistence depends on the forest. They are often pushed further into the Amazon region by resettlement schemes and government concessions to extract timber, oil, or minerals.

Resettlement populations are relatively recent (mostly since middle of 20th century) migrants who moved to these forested areas because they were landless or land-poor in their home communities.⁸ They were pushed to resettlement areas because of highly inequitable land tenure patterns in the highlands and “attractive” government land programs (*programas de colonizacion*). Government regulations often required the cutting down of forest to establish ownership, bringing about deforestation. Land administration institutions have generally failed to establish secure tenure rights to land in these resettlement zones contributing to tenure insecurity in these resettlement communities and perhaps to further deforestation.

When the state decentralizes management to regional and local authorities, this is often done without providing proper support or training.⁹ This situation may result in elite capture or in simple mismanagement. REDD schemes may have the same problems if local consultations and efforts to understand the differences between national law and local customary practices are not made. Cotula and Mayers (2009) contend that REDD should be a tool for good governance, not the primary goal.

In summary, (1) rights to land, forest, and other resources should ideally be sorted out before implementing PES or REDD, (2) measures to make PES/REDD inclusive need to be in place, and (3) other policy interventions are needed to counteract economic incentives or other pressures to clear the forest. From the viewpoint of stakeholders, persons with insecure land rights may find their tenuous rights at risk when REDD or other PES schemes are introduced and resource values increase (Cotula & Mayers 2009). Again, if PES is going to reduce poverty, or at a minimum not increase poverty, institutions at local level needs to be strengthened and local governance needs to be inclusive so as to not exclude those with weaker land rights or no land rights.

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⁸ Thiesenhusen was one of the first authors to point out that when smallholder families are blamed for environmental degradation in forested areas, they have actually been “prematurely expelled to the frontier” by a latifundio system that concentrates most of the best agricultural land “in a socially suboptimal manner” (1991: 7).

⁹ In addition, the state often grants large concessions to local elites or international corporations for their private enrichment and without adequate consultation with local populations.

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