

The Importance of a Formal Property System in Peru

Introduction

Property rights and deforestation are unescapably linked in the Peruvian Amazon. Numerous studies analyze both property rights and deforestation in the Peruvian Amazon (Granoff, 2008; Kerekes and Williamson, 2010; Imbernon, 1999; Salo *et al.*, 2011). Peru, setting an ambitious goal, has committed to reduce the rate of deforestation to zero by safeguarding 75 percent of its forest by 2020 through the “National Programme of Forest Conservation for Climate Change Mitigation” (Salo *et al.* 2011). Containing the second largest tract of forest land in Latin America, and the eight largest in the world, Peru’s forests are of worldwide concern, especially considering 92 percent of Peru’s forests are in the bio-diverse and hardwood-rich Amazon basin (Granoff, 2008). ~~H~~Sears and Vasquez (2011) estimate up to 90 percent of timber originating in the Peruvian Amazon is illegally extracted or traded (Sears and Vasquez, 2011). Since the size of the Peruvian Amazon and services provided impact the entire world, any threats such as illegal logging and deforestation must be confronted quickly.

Peru recently revised its forestry law but failed to incorporate local and indigenous groups in a meaningful way. Two reasons local and indigenous people should be involved are equality and forest management. (Granoff, 2008). Granting title to groups currently living in the Amazon may help improve forest management and social justice. People who have been living on a tract of land for generations should be allowed to continue there. Additionally, using people living in the forest and possessing local knowledge to help with forest management sustainably ties locals to the forest.

Undertaking an initiative for the past 25 years to improve Peruvian property rights institutions, the government of Peru has been issuing land titles to previously untitled people

(Kerekes and Williamson, 2010). Issuing title is a step in the right direction for Peru, but more work needs to be done. An effective property rights system is the key to the issues of underdevelopment and deforestation. While Peru is attempting to clearly define property borders, a more extensive overhaul of the system is needed. Peru must ensure property rights are both clearly defined for citizens as well as protected. In order to encourage economic development and to decrease deforestation, Peru should utilize a community forest management system with clearly defined and enforceable boundaries and regulations. In the Amazon where monitoring and enforcement is difficult because of isolation, a system of integrated community management and clear property rights would be a great benefit, since monitoring would fall to the people owning the land and the government could focus on enforcement. Through ensuring enforceable property rights economic development is assured as well, reserving forest resources only for the community owning forest lands.

Methods

This paper reviews the process of land titling and the effects of land tenure in the Peruvian Amazon. I used sources gathered from the internet databases Web of Science and Google Scholar, as well as recommendations of Dr. David Salisbury, assistant professor of geography and environmental studies. These sources were then compiled using the internet service, RefWorks. The majority of the paper is a literature review analyzing different views on property rights and the community forest management system. The analysis compares sources and ideas in order to make recommendations that the Peruvian government should implement. The conclusion summarizes the recommendations made in the analysis.

Literature Review

Numerous studies examined the relationship between capital and property rights (de Soto, 2000, Kerekes and Williamson, 2010, Besley, 1995). De Soto (2002) argues capital is the solution developing countries must utilize to solve issues of poverty. According to de Soto (2002) formerly communist and developing countries cannot simply import Western goods, but must also import thoughts and practices when it comes to the concept of money and property. Simply opening a McDonalds or producing high end micro-chips does not make a country

prosperous. De Soto (2002) claims prosperity in the West comes from sophisticated property laws which allow citizens of the West to access capital in markets not available in formerly communist and developing countries (Woodruff and de Soto, 2002). Kerekes and Williamson (2010) agree with de Soto on the importance of well-defined property laws but dispute the effectiveness of such laws in all instances as illustrated with a case study of the Peruvian rural system (Kerekes and Williamson, 2010). Additional studies such as Pagdee *et al.* (2006) examine community forest management structures and the role property rights play in community management plans (Pagdee *et al.*, 2006).

In his book de Soto (2002) outlines six effects of the West's formal property system that allow Western citizens to generate capital: fixing the economic potential of assets, integrating dispersed information into one system, making people accountable, making assets fungible, networking people, and protecting transactions (Woodruff and de Soto, 2002).

Fixing the economic potential of assets greatly increases the value of an asset since potential uses can far exceed current use. De Soto writes, "Capital is born by representing in writing- in a title, a security, a contract, and in other such records- the most economically and socially useful qualities *about* the asset as opposed to the visually more striking aspects *of* the asset" (Woodruff and de Soto, 2002). This process creates a new level on which the asset operates as the asset is no longer tied solely to physical attributes but can now be described by economic and social attributes as well. De Soto demonstrates property as pure concept when analyzing the process of selling a house; the house looks physically the same before and after the sale, but the owners have changed (Woodruff and de Soto, 2002). This process allows for a house or other piece of property to serve both a physical as well as a financial purpose, such as: "collateral on a loan, equity exchanged for an investment, as an address for collecting debts, rates, and taxes; as a locus point for the identification of individuals for commercial, judicial, or civic purposes; and as a liable terminal for receiving public utility services" (Woodruff and de Soto, 2002). "Legal property thus gave the West the tools to produce surplus value over and above its physical assets" (Woodruff and de Soto, 2002).

Integrating dispersed information into one system facilitates the creation of capital by centralizing the information needed to make economic transactions, such as who owns the property, how extensive is the property, and what uses are permitted. The concept of a country

having a single formal legal system is a relatively recent phenomenon, in most Western countries integrated property systems appeared only about a hundred years ago, and in Japan this process occurred little more than fifty years ago (Woodruff and de Soto, 2002). Before integrating the vast number of extralegal systems that existed pertaining to property the situation in Western countries was much like it currently is in formerly communist and developing countries. De Soto describes the benefits of integration, “citizens in advanced nations can obtain descriptions of the economic and social qualities of any available asset without having to see the asset itself” (Woodruff and de Soto, 2002). Resulting from this availability of information an asset’s potential becomes easier to evaluate and exchange, enhancing the production of capital (Woodruff and de Soto, 2002).

Through the process of integrating all property information into one system people can be held accountable through centrally located information. Able to learn of past legal infractions and dishonored contracts, authorities can suspend services, place liens against property, and withdraw some or all of the privileges of legal property (Woodruff and de Soto, 2002). Thus formal property systems create accountability in individuals because a violation will be recorded in the system and jeopardize that individual’s ability to do business in the future with partners aware of past transgressions. In formerly communist and developing countries where there is a lack of legal property people can only do business with family and friends who trust the individual since without formal property there is nothing for an individual to lose and thus no reassurance for a business partner that the individual is trustworthy (Woodruff and de Soto, 2002). In advanced nations citizens can conduct business with most anyone, because as de Soto writes, “commitment is better understood when backed up by a pledge of property, whether it be a mortgage, a lien, or any other form of security that protects the other contracting party” (Woodruff and de Soto, 2002).

To make an asset fungible the economic features must be uncoupled from the rigid, physical state and viewed as a representation, thereby making an asset suitable for practically any transaction (Woodruff and de Soto, 2002). Removing the physical characteristics of an asset allows the asset to be placed in standard categories allowing for the comparison of two assets performing the same task with different physical features (Woodruff and de Soto, 2002). Comparing two office buildings provides a good example, the two buildings look different but

ultimately provide the same service and by removing the physical aspects the buildings can be compared quickly and inexpensively. In addition to easy comparison between assets creating a representation of the asset allows for ownership to be divided amongst multiple people through the concept of shares (Woodruff and de Soto, 2002). One situation in which shares are beneficial is farming. In many developing countries a farmer must subdivide land, giving a parcel to each child; this eventually leads to a point where the parcels are too small to be economically sustainable. “In contrast, in developed countries the farmer’s son who wishes to follow in his father’s footsteps can keep the farm by buying out his more commercially minded siblings” (Woodruff and de Soto, 2002). In developed countries citizens can adapt their assets to any economic circumstance to produce higher values, whereas developing countries remain trapped in the world of rigid, physical, non-fungible assets (Woodruff and de Soto, 2002).

Forming a network of individually identifiable and accountable business agents has been facilitated by the aspects of formal property systems thus far reviewed (Woodruff and de Soto, 2002). Designed and properly understood, a property system creates a network through which people can assemble their assets into more valuable combinations (Woodruff and de Soto, 2002).

One reason Western formal property systems work like a network is that all the property records are continually tracked and protected as they travel through time and space (Woodruff and de Soto, 2002). The process leads to trust in transactions and the knowledge that when a transaction is made there are no other issues that will later come as a surprise. In Western countries an emphasis is placed on protecting transactions, whereas in developing countries the emphasis is placed on property ownership. This difference leads to the ability of Westerners to create capital easily using property whereas in developing countries property serves only a physical purpose (Woodruff and de Soto, 2002).

The six effects of a formal property system allow for a house in a developed country to move beyond being a physical structure, but with representational existence, a house can also lead a parallel life doing economic processes (Woodruff and de Soto, 2002). A successful property system does two things: “First, it tremendously reduces the costs of knowing the economic qualities of assets by representing them in a way that our sense can pick up quickly; and second it facilitates the capacity to agree on how to use assets to create further production and increase the division of labor” (Woodruff and de Soto, 2002). A formal property system is

the basis for all developed countries because it allows for the creation of capital which spurs growth and development (Woodruff and de Soto, 2002).

Kerekes and Williamson (2010) argue against de Soto's view that a formal property system will ensure greater access to credit. In a case study of rural Peru, Kerekes and Williamson (2010) gathered qualitative data from local people through face to face interviews in order to determine the effectiveness of land titling as a means to access greater capital. Peru was an ideal location for this study for two reasons: Peru lacks secure property rights, and over the past 25 years the Peruvian government has undertaken land titling in order to improve property rights institutions (Kerekes and Williamson, 2010). On the International Property Rights Index which scores Peru as a 3.7, or in the bottom 25 percent, on a scale of 0 to 10, with 10 being the highest and 0 the lowest (Kerekes and Williamson, 2010). The worldwide average is 5.3 (Kerekes and Williamson, 2010).

The study done by Kerekes and Williamson (2010) suggests land titling in rural Peru does not achieve its intended effects or those predicted by de Soto. The main findings include government land titles not providing sufficient collateral to guarantee a loan, and where government land titles do exist the enforcement of property rights is not achieved through public institutions (Kerekes and Williamson, 2010).

When asked about the benefits of a government land title the primary response was the ability to ask the national banks for loans (Kerekes and Williamson, 2010). This response makes sense when thinking about capital and the importance of formal property is to raising capital. However, respondents also indicated that even with a government land title private institutions still required higher rates of interest than the national banks, and that in some cases, even with a government land title, the national bank required additional co-signers and more collateral than the loan was worth (Kerekes and Williamson, 2010). Since private banks are willing to issue loans regardless of a government land title, but require large interest rates it is reasonable to claim that private institutions do not give much weight to government land titles, which is reinforced by the fact that the same government issuing the land titles required additional collateral on top of property (Kerekes and Williamson, 2010).

Addressing enforcement of property rights, Kerekes and Williamson (2010) asked individuals how secure property rights were in rural Peru. The general consensus was individuals feared government expropriation of property, but were not concerned with expropriation by other individuals (Kerekes and Williamson, 2010). Throughout interviews the general response was that the government did not protect people's property, and individuals would prefer to rely on arbitration conducted by community leaders (Kerekes and Williamson, 2010).

Analyzing surveys Kerekes and Williamson (2010) conclude ~~that~~ there is no evidence that land titling provides sufficient collateral to obtain access to credit, and secondly, even if a government land title defines property, the security of said property is primarily enforced through private rather than public enforcement mechanisms (Kerekes and Williamson, 2010). Access to credit is not occurring because private banks will lend with or without title, but charge very high interest rates, and government banks ask for additional collateral, illustrating that both private and public institutions clearly do not believe in the security of land titles. One explanation offered is that even though the government is now issuing titles the enforcement component is not present (Kerekes and Williamson, 2010). Kerekes and Williamson (2010) conclude by stating the importance of property rights cannot be overstated; the method of government land titling may fail to achieve secure property rights that promote economic growth but it is not the institution itself that fails to spur development (Kerekes and Williamson, 2010).

De Soto (2002) and Kerekes and Williamson (2010) argue for the importance of properties rights in order to achieve capital, achieving economic development in developing countries but fail to address the issue of sustainability. In rural areas gaining recognition over the past two decades community forest management (CFM) represents a viable option to both ensure sustainable management of the forest and economic development (Pagdee *et al.*, 2006). The concept behind community management places the well-being of the forest in the hands of the people living there and possessing local knowledge crucial for successful management, however, this goal only works when adequate property rights are in place.

Conducting a meta-data study encompassing 69 case studies worldwide Pagdee *et al.* (2006) identified factors important to the success of CFM. The study identified nine factors as important: property rights regimes, institutions, incentives and interests, financial and human resource support from both local and outside agencies to run management programs, physical

features of the forest, community features, level of participation, degree of decentralization, and technology and market influence (Pagdee *et al.*, 2006). Three of the nine factors listed were mentioned in every study reviewed and thus are considered the most important along with decentralization, which though not listed in all case studies, was still determined to be essential. The four factors identified as the most necessary for successful CFM are: well-defined property rights, effective institutional arrangements, community interest and incentives, as well as decentralization (Pagdee *et al.*, 2006). Each of the nine important factors was broken down further into smaller aspects of the whole, thus particular aspects of factors could be analyzed.

The-Regarding property rights, the aspects most significantly associated with CFM's success include tenure security, clear ownership, congruence between biophysical and socio-economic boundaries, effective enforcement of rules and regulations, monitoring, sanctioning, strong leadership with effective local organization, expectation that benefits will accrue to villagers, sharing of common interests among community members, and local authority (Pagdee *et al.*, 2006). Clearly defined boundaries were found to have a weak association with CFM success but using this variable can be misleading because even with clear boundaries other aspects may not necessarily be in place, such as tenure security (Pagdee *et al.*, 2006). The fact that clear boundaries are not the key to secure property supports the claims of Kerekes and Williamson that without enforcement boundaries mean little.

Serving as a comparison to Peru, Brazil has been the focus of many studies examining property rights in the Amazon frontier (Alston *et al.*, 1995; Alston *et al.*, 1996; Araujo *et al.*, 2009; Imbernon, 1999). Comprising a large portion of the Amazon Basin, Brazil is often cited as a key contributor to rapid deforestation with unclear property rights being suggested as a source of the problem (Alston *et al.*, 1996).

The Brazilian property rights system has developed more than Peru's. Brazilians have greater trust in the system and rely on the courts to mediate disputes (Alston *et al.*, 1996) as opposed to the arbitration that Kerekes and Williamson (2010) referred to in Peru. This greater trust allows for Brazilians to take advantage of new capital markets, most often used to further improve farms, and increase the land value for titled property (Alston *et al.*, 1996). Alston *et al.* (1995) conducted a survey in Brazil similar to one done in Peru by Kerekes and Williamson (2010) that showed strikingly different results. In Brazil individuals revealed that title has value

and is worth investing resources to secure, whereas in Peru individuals stated that they desired title but even when they had it they still feared the government would take titled land as easily as untitled (Alston *et al.*, 1995; Kerekes and Williamson, 2010).

A comparison of the driving forces behind deforestation in the Peruvian and the higher rate of deforestation in the Brazilian Amazon found two main reasons for???: (Imbernon, 1999). These are how accessible the frontier is for people and access to markets, and secondly, land abundance and land rights (Imbernon, 1999). Deforestation patterns in Brazil and Peru are different as well, in Brazil there are more roads from which deforestation advances in a fish bone pattern along, whereas in Peru roads are less abundant and rivers must be used to remove logs (Imbernon, 1999). In addition to road availability the amount of land ~~that is~~ available differs between countries. Most Brazilian farmers have title claimed through either colonization projects or clearing land and proving value added, whereas in Peru most frontier people do not have title (Imbernon, 1999). Imbernon (1999) concludes by tying together the facts of greater road density and a larger percentage of land protected under legal title to show that Brazilian forest are more market oriented and linked to global market conditions which has led to a different forest dynamic than has occurred in Peru (Imbernon, 1999).

Analysis

Peru has a lot of room to improve on developing a robust formal property system that would serve a dual purpose of providing economic opportunities to local and indigenous groups in the Amazon as well as protecting the forest from illegal logging and deforestation. De Soto (2002) demonstrates the importance of capital to economic development and lays out basic tenants of a formal property system. Kerekes and Williamson (2010) conducted a case study of Peru in which local people were interviewed and shown not to be benefiting from Peru's new push on titling lands. Kerekes and Williamson conclude by claiming that de Soto's (2000) assertion that capital is the key to economic development does not apply in Peru because it has not succeeded thus far. Kerekes and Williamson (2010) provide a very narrow view and do not analyze the entire problem, instead focusing on one particular issue. Broadening the view to encompass the entire system, de Soto's (2000) arguments for the necessity of capital make

logical sense and if Peru wants to achieve economic development de Soto's (2000) points should be incorporated into Peruvian forestry law. Forestry law should incorporate de Soto's (2000) focus on capital, as well as those suggestions made by Granoff (2008) and examples from other countries, such as Brazil. This not only would provide economic development in the Peruvian Amazon but also encourage and support sustainable forest management.

In order for Peru to meet the zero deforestation rate by 2020 all the stakeholders involved with the forest must be involved. Local and indigenous groups living in and relying on the forest must be incorporated in a meaningful manner that ensures equality (Salo *et al.*, 2011). An integrated, formal property system combined into a system of community forests might ensure economic growth and sustainable forest management.

Local and indigenous people must be provided with a means to increase economic growth that does not include taking advantage of forest resources through illegal logging. Improving upon the property system currently in place in Peru is a great way to achieve this goal. Access to capital markets as de Soto (2002) points out is critical. In the United States up to 70 percent of the credit new businesses receive come from using formal titles as collateral for mortgages (Woodruff and de Soto, 2002). When property rights are not in place or are not trusted, individuals lose out on a huge source of financing.

Currently the Peruvian property system has a lot of holes that need to be filled to adequately provide rural people with the ability to take advantage of new capital markets that would become available with an adequate property rights system. Integration of dispersed information into one property system needs to be the first step that Peru takes in improving property rights. The six effects of an integrated property system that de Soto (2002) refers to all build on one another, which means that the first ones are the most important. Peruvians are capable of fixing the economic potential of an asset, the first effect, as demonstrated by the responses that Kerekes and Williamson (2010) received relating to loan denials when using titled land as collateral. Clearly the individuals understood the concept of using collateral to gain capital. The second aspect however is missing; a single source of property information.

Once a unified system for storing property data is established in Peru, the other four effects that de Soto (2002) discussed can be addressed. People can only be held accountable once

they possess something that can be lost as a result of a failure to comply, and this can only happen once a clear chain of title is developed so that responsible parties are the only parties punished (Woodruff and de Soto, 2002). Assets can be made fungible, or divisible, once all records are combined as well. All property must first be stored in a single system though so that property can be placed into categories based on function, these categories then allow for multiple people to own something that is not physically divisible (Woodruff and de Soto, 2002). This could be very useful to indigenous and local groups through community forest in which all members of the community would own a share of the forest.

Making assets fungible, attaching owners to assets, assets to addresses, and ownership to enforcement, as well as making information on the history of assets and owners easily accessible, a formal property system can convert citizens into a network of individually identifiable and accountable business agents (Woodruff and de Soto, 2002). Individuals become identifiable and accountable because of their legal property (Woodruff and de Soto, 2002). In Peru this accountability should be enough to ensure loans from banks, but is not the case as even government owned banks do not always recognize titles as sufficient collateral (Kerekes and Williamson, 2010). This lack of trust occurs in Peru because the final element laid out by de Soto (2002) is not present, protecting property. Without proper protection of assets the entire property system collapses, individuals can no longer be held accountable and thus cannot receive loans, losing or not gaining access to capital.

Kerekes and Williamson (2010) conclude government land titling is not always a channel through which countries can achieve secure property rights based on a case study conducted in rural Peru (Kerekes and Williamson, 2010). The study found that a government land title is not sufficient as collateral to guarantee a loan and that in the presence of government land titles the enforcement of property rights is not achieved through public institutions (Kerekes and Williamson, 2010). Peruvians responding to the Kerekes and Williamson (2010) survey stated that private banks would lend to them regardless of land title but charge an extremely high interest rate whether a title is present or not, and that in some circumstances government banks would not honor a land title as sufficient collateral (Kerekes and Williamson, 2010). Additionally, when a dispute arises Peruvians turn to community leaders to settle the matter through arbitration rather than through the court system because the cost of going through the

courts is prohibitive (Kerekes and Williamson, 2010). Based on these two shortcomings Kerekes and Williamson (2010) dismiss de Soto's (2000) ideas, by stating that de Soto (2002) failed to grasp the complexity of the situation and did not acknowledge complementary institutions that may need to be present in order for land titles to translate into positive outcomes (Kerekes and Williamson, 2010).

Claiming that de Soto's (2000) ideas regarding the importance of property rights in regards to capital are wrong based on rural Cusqueños need for complementary institutions to arbitrate land title appears superficial. Pointing out what is missing in Peru, enforcement, only helps solidify de Soto's (2000) argument. If every piece of the system de Soto (2002) described was in place and the system did not work, that would prove the system is faulty, but claiming that the system does not work without all the pieces should be obvious. Kerekes and Williamson (2010) only prove Peruvian government need to refine the property rights system to ensure enforcement of protection. If the government would guarantee property is protected when titled, banks and other institutions would be able to lend knowing that the collateral put up by the borrower was good.

In addition, to ensuring protection of property the Peruvian government must integrate all property records into a single source. The Peruvian government seems to be on the right track in this regard as two main organizations responsible for land titling have recently merged (Kerekes and Williamson, 2010). Previously the Comisión de Formalización de la Propiedad Informal was charged with land titling for urban squatters and Proyecto Especial de Titulación de Tierras y Catastro Rural was charged with converting rural settlements into nationally registered property (Kerekes and Williamson, 2010). Combining multiple agencies makes it easier for citizens to understand the process and ideally go through less red tape in order to obtain title.

Incorporating de Soto's (2000) ideas of property rights and capital with the idea of CFM appears very promising as a long term solution for economic development and sustainable forest management. Over the past two decades CFM has been recognized as a potential approach for achieving forest sustainability by focusing on improving the livelihood and welfare of rural people and conserving natural forest systems through local participation and cooperation (Pagdee *et al.*, 2006). This approach has promise because it allows for local people to control the forest in

which they live and helps to solve one of the largest issues faced by forest management plans, monitoring (Granoff, 2008).

Currently many indigenous groups respect communal land holdings, but since they do not have legal title often suffer encroachment from illegal loggers. Peru utilizing the key factors laid out by Pagdee *et al.* (2006) could incorporate un-titled communities into their forestry system and advance the goal of zero deforestation by 2020. However, for Peru to continue creating titled groups the government must commit to ensuring property rights are protected; the court system must be effective at prosecuting illegal loggers and others that look to take advantage of isolated communities (Kerekes and Williamson, 2010).

The benefits of CFM exceed the costs associated with titling and protecting new groups. CFM allows for the forest to be protected at the same time local and indigenous groups are given the legal rights to use the land they have been on for years and the means to economic development. The current titling system gives land that has a productive use, which does not include standing forest (Granoff, 2008). This system is similar to the system for titling found in Brazil that has contributed to rapid deforestation throughout the Brazilian Amazon as local people are incentivized to clear land in order to prove its productivity (Granoff, 2008; Imbernon, 1999). This system needs to change in order to account for the productive uses that local forest people use the standing forest, by accounting for these uses individuals would be able to claim titles for forest lands and help reduce the amount of deforestation that takes place (Granoff, 2008). Under the current system a community or small town may be able to get up to 500 hectares designated as a local forest, these forest are issued to the community and are great examples of CFM already in action (Granoff, 2008). The appeal of CFM is individual rural Amazonians are able to access timber resources through community systems with potentially fewer costs than operating through large government agencies (Granoff, 2008).

CFM provides another key advantage to sustainable forest management, a group of people dedicated to protecting property that legally belongs to the community and thus affects each member individually. Two of the biggest hurdles forest management systems must overcome are monitoring and enforcement (Granoff, 2008). Giving legal title to a community would involve every member of the community in the protection of land belonging to them, that means if there was a problem, such as illegal logging, a report could be placed and the

government never had to spend any money on the monitoring aspect. However, for this to be effective the National Institute of Natural Resources (INRENA) must have the ability to take action (Granoff, 2008). Currently there are multiple agencies and branches are involved with enforcement of forest laws. INRENA is charged with ensuring that logs are being harvested legally but once the logs reach the rivers to be transported the logs are in the Peruvian Navy's jurisdiction, which puts a low priority on illegal logging (Granoff, 2008).

Research has demonstrated that human-inhabited protected areas can be highly effective at achieving conservation, particularly where protected areas provide security of tenure to inhabitants in exchange for an obligation to protect forests (Granoff, 2008). Missing out on a significant resource the Peruvian government is under-utilizing local forest people as agents of monitoring and enforcement in the Amazon (Granoff, 2008).

Conclusion

Property rights are critical for the economic development of local and indigenous people living within the Peruvian Amazon and for the greater protection of the forest. If Peru wants to meet the goal deforestation rate of zero by 2020 it must make changes to the current system that incorporates all Peruvians. De Soto (2002) makes a strong argument in support of property rights as a key to economic development that is supported by the work of Pagdee *et al.* (2006). Incorporating the concepts of property rights with the concept of a community forest system appears to provide a long term sustainable option that accomplishes both economic development and sustainable forest use.

Peru must still title communities in order for property rights to be effective once the community owns the land, but since the government is making a push to improve the property system it should not be too difficult to implement. Community members ideally would all own a share of the community forest that makes them an equal partner in any decisions relating to the management of said forest. Encouraging community monitoring by way of ownership saves the government money that can be reallocated to improving enforcement. There needs to be one organization that is responsible for enforcing legal logging throughout the entire process and not have jurisdictions interrupted allowing the system to be cheated.

CFM ensures economic development for the community owning the forest through the exclusive use of forest resources. The community can then decide how to utilize the forest, but all members benefit as opposed to a few individuals who take advantage of lax enforcement and little regulation. In order for CFM or any management plan to be effective, property rights must be enforced by the government. Without government enforcement a property title is worth only as much as the paper on which it is printed.

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