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# Collective Titling and the Process of Institution Building: Common Property Regime in the Colombian Pacific

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### Abstract/Resumen

This research is aimed at an empirical examination of the institutional developments that have occurred in Afro-Colombian communities after the change of a property right regime. We surveyed community leaders to understand whether these communities have succeeded in designing and implementing rules to manage their collective land and its resources. This paper illustrates how collective titling has changed the local environmental governance by creating local rules and legal tools to guard against the encroachment by intruders. Our study presents an example of a complex property system where both formal and informal rights coexist.

Keywords: Colombia, property rights, institutions, resource management.

### List of used Abbreviations:

CC Community Council - CC  
Incoder Instituto Colombiano de Desarrollo Rural (Colombian Institute of Rural Development)  
JAC Juntas de Acción Comunal (Communal Neighborhood Association)  
PCN Proceso de Comunidades Negras (Black Communities Process)  
CVC Corporación Autónoma Regional del Valle del Cauca (Regional Autonomous Corporation from Valle del Cauca)



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Property Regime in the Colombian Pacific**

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# Collective Titling and the Process of Institution Building: Common Property Regime in the Colombian Pacific

*“In an agrarian society, to reform the rules of land tenure is to redefine relationships between and within communities, and between communities and the state” Boone (2007, p. 558)*

## 1. Introduction

Over the last decade, the Colombian Government has assigned collective land titles to more than five million hectares of land in Afro communities along the Pacific Coast.<sup>1</sup> The titling of collective territories for Afro-descendants in Colombia is perhaps one of the most ambitious processes of land redistribution in Latin America (Offen 2003). Similar processes are now occurring in territories inhabited by Afro-descendants in Ecuador, Panama and Brazil. The understanding of these group decision-making processes, in the management of natural resources as a strategy for poverty alleviation and biodiversity conservation, is crucial for the promotion of effective development policies in the region. Therefore, more empirical research is needed to understand government arrangements within these territories (Plant and Hvalkof, 2001).

From 1996 to 2008, a total of 157 communities received collective land titles in six departments of the country, benefiting more than 60,000 families.<sup>2</sup> This process differs from a traditional agrarian reform because the redistribution of land has not been directed toward private individuals but rather to communities with historical presence in those territories. Thus, community members do not have access to new formal rights of individual property, but instead to the collective titles assigned to each community.

These collective titles can be classified as pure common property regimes, in which members have four of the five possible rights identified by Shalager and Ostrom (1992): access, withdrawal, management, and exclusion. Afro-Colombian communities do not have the formal right of alienation, which means that the collective titles cannot be sold or bought in the national land market.<sup>3</sup>

Land titling attaches a community to a resource base, and ensures that it can use and preserve this base as a foundation for maintaining and advancing its local economy. Thus, well-defined property rights, even if collective and without alienation rights, should create an incentive for community members to guard against encroachment by external intruders, as well as to invest in the resources for its future benefit (Shlager and Ostrom 1992; Baland and Platteau, 2003; De Alessi, 2003). However, these *de jure* rights do not guarantee the conservation or sustainable use of the resources unless internal appropriation and management rules effectively regulate internal

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<sup>1</sup> The area assigned in collective titles is equivalent to almost twice the size of Belgium.

<sup>2</sup> Information provided by Incoder. The six departments are: Choco, Cauca, Nariño, Valle del Cauca, Risaralda and Antioquia. In Colombia the political division of departments has a similar usage as provinces in other countries.

<sup>3</sup> The lack of alienation right, according to Eggertsson (2003), is usually defined to perpetuate social groups.

users (Shlager and Ostrom 1992).<sup>4</sup> Whether a community can actually accomplish these tasks is an empirical question.

Our project builds upon the findings of scholars studying common property regimes, which generally recognize that “members of small local groups can design institutional arrangements to help manage resources sustainably” (Agrawal, 2001).<sup>5</sup> It also draws lessons from the property rights school and the literature on enclosure of the commons to analyze the different institutional arrangements that evolve within the collective territory (e.g. Demsetz, 1967; North and Thomson, 1973; Field, 1989).

In this paper we examine the change in the property right regime in rural Afro Colombians communities of the Pacific Coast.<sup>6</sup> In particular, we explore the institutional and managerial developments that have occurred in the Afro communities of rural Buenaventura, Department of Valle del Cauca.<sup>7</sup> In our analysis we include Afro communities that have received collective titles and Afro communities that are currently applying for the title. We survey 82 community leaders from 42 communities of Buenaventura to understand if the communities have – or have not – evolved rules and procedures to manage the collective land and its resources after the change in the property right regime.<sup>8</sup> We conduct our analysis in communities that are still in a state of transition, as the effect of the collective titling is an ongoing process.

We find that collective titling has changed the region’s political landscape and the local environmental governance in the Afro Colombians communities. The establishment of formal property rights has created the incentives and legal tools to help guard against the encroachment by external intruders and has promoted the definition of new rules and procedures to manage the resources. However, the enforcement and monitoring of the rules intended to manage the territory and its natural resources is still weak. We also find that the new property regime has not replaced individuals’ informal land holdings that are still traded in the informal land market. Therefore, our case study presents an example of a complex property system where both formal and informal rights coexist.

This paper contributes to the literature of “the commons” (Ostrom 1994, Wade 1988, Baland and Platteau 2003, Agrawal 2001, Eggerston 2003) and to the ongoing debate on the interaction between property right regimes and natural resource management, particularly as it explores the effect of the titling in managing a territory (Brown 2000; Field 1989; Hardin 1968; Ostrom 1990).

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<sup>4</sup> “De jure” rights are different from “de facto” rights in that the former implies recognition from the legal authorities (Shlager and Ostrom, 1992). Throughout the text, I use interchangeably the terms “de jure”/ formal rights and “de facto”/ informal rights.

<sup>5</sup>For example see Ostrom (1990, 1994) and Agrawal (2001) for a summary of this literature.

<sup>6</sup> We sometimes refer to this population as the Afro communities.

<sup>7</sup>As rephrased by Menard Claude and Mary ShirLaw (2005) we understood institutions as “written and unwritten rules, norms and constraints that humans devise to reduce uncertainty and control their environment.” Thus, a reference to “institutional and managerial developments” considers changes in formal and informal “rules” and “norms” by which a community functions and manages their territory and natural resources.

<sup>8</sup> We do not analyze the causes or evolution for the new property right regime but instead only its consequences for the management of natural resources and the territory. Neither we are testing the effectiveness of these new rules on the management of a natural resources or welfare of community members.

To our knowledge this is the first institutional analysis of the collective titling of Afro Colombian communities in the Pacific Region. Although there is a history of collective titling for indigenous communities in Latin America, Colombia was the first case in the region to assign collective lands to non-indigenous ethnic minority groups such as the black communities of the Pacific Coast (Villa and Sanchez, 1998; Plant and Hvaalkof 2001).

This case study also presents a rare opportunity to study the initial allocation rules for different resources crafted by a culturally homogenous population (i.e., the same ethnic group) under the new legal system. Each collective property title is defined for a territory with different resources, including farmland but also tropical forests, mangrove forests, mining areas, and fisheries. Thus, we examine how the institutional arrangements vary depending on the type of resource (Eggertsson, 2003; Libecap 2006), with particular attention paid to farm land and forest (e.g. timber exploitation). The study also identifies how external factors that are less studied in the “commons” literature (Awagral, 2007), such as the Colombian armed conflict and the expansion of illicit crops, might affect the process of institution building and the consolidation of local governments.

A similar approach to our work is found in Agrawal and Yaman (1997), who analyze 279 forest councils of Kumaon, India and examine how localized regulations affect resources management given population pressure and new market demands. Our analysis is also similar to the work done by Munoz Piña et al. (2003) who studied the *ejido* system in Mexico and the incentives to divide the collective land under new legislation allowing changes in the *ejido*'s property regimes.<sup>9</sup>

In the next section, we give a brief overview of the region and describe the process of collective titling in the Colombian Pacific. In the third section we explain our procedure for interviewing community leaders. In the fourth section we discuss our survey results and analysis. The fifth and final section concludes our discussion, and offers some suggestion for further study in this area.

## **2. Background: The Collective Titling Process**

The Pacific region of Colombia, an area that goes from Panama to Ecuador and from the western chain of the Andes to the Pacific Ocean, is mainly inhabited by black communities, descendents of former African slaves. Afro-descendents represent more than 90% of the population of the region, which is also inhabited by indigenous communities (Embera, Eperara Siapidara, Awa, Chachi, Wounaan, Tule and Zenú) and mestizos (Grueso et al. 1998). Sixty percent of the population live in a few cities (such as Tumaco, Buenaventura and Quibdó) and forty percent live along the banks of more than 240 rivers (Grueso et al. 1998). These people are engaged in various subsistence and commercial activities such as agriculture, fishing, hunting, mining and timber exploitation (Grueso et al 1998). Afro-Colombian communities are considered one of the

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<sup>9</sup> See also the work done by Mwangi (2006) regarding the politics and distributional consequences of dividing the common lands in Kenya.

most vulnerable populations of the country, with very low levels of infrastructure and public services and rates of illiteracy and child mortality higher than the national average. For example, the average life expectancy of Afro-Colombians is 64.4 years whereas the national average is 72.8 years (DNP, 2008). Also, the average monthly income of a family in the area is less than 350,000 pesos while the national minimum legal monthly salary is around 460,000 pesos (approximate US \$255).<sup>10</sup> The Pacific region is considered a hot spot of biodiversity due to the high level of endemism and variety of species: 800 species of vertebrates per hectare, between 7000 and 8000 species of plants, and 100 species of birds (WWF, 2002).

Afro-Colombian communities settled in the Pacific Region without any formal property rights arrangements at the individual or community level. In fact, until 1991 the Colombian government viewed the Pacific region as a massive forest reserve of unoccupied lands (*tierras baldias*), basically ignoring the historical presence of black and indigenous communities (Plant and Hvaalkof 2001). These lands were then an open access regime at the mercy of anyone (some locals but also outsiders) who had the resources to exploit them, mainly for timber and mining. In many cases the exploitation of resources was operationalized by concessions given by the Colombian Government to multinationals.<sup>11</sup>

In 1991, the new Colombian Constitution, in particular Article 55, recognized the right of black rural communities to access collective land titles in territories of the Pacific Region. This Article 55 was operationalized in 1993 with the implementation of a new law, Law 70.<sup>12</sup> One of the most important consequences of Law 70 was that the lands of the Pacific Region in which black communities had historical presence were subject only to collective titling, and thus individual titles could not be issued. Also, black communities received the right to exclude outsiders from extracting resources, thus gaining control over the territory. Higher levels of government (national, state or municipal level), indeed, any other organizations, were enjoined from pursuing any project without consulting with the authorities representing the black rural communities.<sup>13</sup>

The institutional reform and the concurrent changes in the property rights regimes of these communities were motivated by two very different agendas that have converged in the promotion of this decentralization policy for resource management.<sup>14</sup> On one hand, the fight for secure access to land has been a crucial point for the consolidation of the rural black social movement in Colombia (PCN) and a first step in the empowerment of these ethnic minorities (see Escobar and Pedrosa 1996; Grueso et al. 1998). On the other hand, the definition of property rights was promoted as a sustainable development strategy for the Pacific Region. The World Bank supported the initial titling process of collective lands through a loan given to the Ministry of Environment in 1994. The initial explicit goal was biodiversity conservation, based

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<sup>10</sup> Information provided by the leaders interviewed for the communities in Buenaventura, Valle del Cauca.

<sup>11</sup> One of the most important and devastating “concessions” for timber exploitation was obtained by Carton de Colombia owned by the Irish company Smurfit from 1974 to 1993 in rural Buenaventura (see Broderick, 1998).

<sup>12</sup> The text of *Law 70* is available at:

[http://www.dnp.gov.co/archivos/documentos/DDTS\\_plan\\_integral\\_afro/LAW\\_70\\_1993\\_AFRO%5B1%5D.pdf](http://www.dnp.gov.co/archivos/documentos/DDTS_plan_integral_afro/LAW_70_1993_AFRO%5B1%5D.pdf).

<sup>13</sup> Decree 1320 of 1998 regarding *Consulta Previa* specifies communities’ right to be asked or consulted before the implementation of any decision that directly affects them.

<sup>14</sup> See Agrawal and Ostrom (2001) for a study of the politics of decentralization as strategy for resource conservation in Nepal and India.



on the successful experience of indigenous *resguardos* in the Colombian Amazon<sup>15</sup> (Plant and Hvaalkof 2001; Offen 2003; Ng'weno 2000, World Bank 2005, Sanchez and Roldan 2002, Sanchez and Garcia 2006).

Overall, Law 70 and its corollary decrees specified the process for allocating the collective land, as well as some general rules regarding community organization, functions of the local authorities, decision procedures at the local and regional level, and the channels of communication between the national government and the local authorities.<sup>16</sup> According to the new legal framework, in order to apply for a collective title, each community has to establish a Community Council (CC) as a political and territorial organization. The CC is the highest local authority formed by the General Assembly, and is constituted by all the inhabitants of the territory and the Community Board (the designated internal authority) that must be elected every three years.<sup>17</sup> The Law was open as to who could form a CC. It specifies that any group of black families (with no reference to the number of families) with historical presence in the territory and with a shared culture, traditions and production practices was eligible for titling and thus could form a CC. Thus, the number of families and communities who formed a CC was case-specific and depended on family ties, geographical boundaries, level of local organization and the role of external actors who advised community leaders in the process of council formation and titling. Once the CC is formed and registered in the mayor's office for its corresponding jurisdiction, the application for the title is submitted to Incoder. In order to assign the title, Incoder is supposed to verify that there are no other parties claiming the same property.<sup>18</sup>

In the municipality of Buenaventura, the focus of our analysis, CCs were organized in two ways: CC by Watershed and CC by Village (*Vereda*). The CC organization by watershed followed the socioeconomic dynamic of the river, in which all the communities living at the margins of a particular river formed one CC and applied for one title. This type of titling was promoted by the black social movement organized as PCN, which fostered a deep process of socialization of the new Law to help organize the CCs. Supporters of this organization by watershed claim that this will avoid divisions of the territory. They argue that a seasonal restriction in hunting, for example, does not make sense if applied only in a council upstream. In addition, other ideas behind the watershed CCs were to maintain family ties that go beyond the village and traditional production systems that imply using different spaces of the watershed.

The CC organization by village, on the other hand, followed the previous political territorial division and local organization based on JACs.<sup>19</sup> Thus, on one river several Community

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<sup>15</sup> According to the program evaluators, a direct result of this program was the titling of more than 2.3 million of hectares to Afro-Colombian Communities (Sanchez and Roldan, 2002).

<sup>16</sup> The following decrees relevant for Black Communities and collective titling: 2248 of 1995, 1745 of 1995 and 1320 de 1998.

<sup>17</sup> Decree 1745 of 1995 specifies the functions of the General Assembly and the Community Board. Among the most important are: the conservation of the natural resources pursuant to national legislation; the protection and conservation of the collective rights; the implementation of development and management plans; delimitation and assignment of land uses within the collective territory; and the solution of internal conflicts.

<sup>18</sup> This was the procedure used until 2007 but is expected to change in 2008 when another institution (Ministry of the Interior) is supposed to assume responsibility for all the issues related to Afro Communities.

<sup>19</sup> The JACs are recognized by law as the principal community based organization in the country.

Councils were formed, with each applying for different land titles.<sup>20</sup> This process was promoted by external parties hired by Incoder to speed the titling process. Among the advantages of this system, according to its advocates, is broader participation at the local level. In the watershed communities only delegate(s) from a village can participate in the general assemblies in which crucial decisions for the community are made, whereas in the CCs organized by village all community members are able to participate in the decision-making process.

Each community was autonomous in its decision to form a CC either by watershed or by village. These trends with different implications for community participation and management of the territory, determined for the most part the size of the collective territories in each of the CCs since watershed councils implied a larger territory than councils organized by village.

### 3. Research Design

Our unit of analysis was the Community Council, the new political and territorial organization established with the new property regime. The collective territories of Afro Colombian communities are distributed around four cities in six different departments of Colombia.<sup>21</sup> We decided to concentrate our efforts in only one municipality, Buenaventura in Valle del Cauca, in order to control for key external variables (such as external authorities at the municipal and state level) that might impact the management of natural resources. Also, due to its geographical location and our local contacts, we were able to bring together in Buenaventura leaders from different communities dispersed throughout the entire region.<sup>22</sup>

The mayor's office in Buenaventura has a total of 42 registered CCs. Twenty-nine CCs have received collective titles of the land (titled CCs) and 13 CCs have not received a title yet (non-titled CCs), although all of these have submitted an application for getting a collective title.<sup>23</sup> Twenty-four percent of titled CCs are organized by watershed and 76 percent are organized by village. In the non-titled CCs, all but one of the CCs are organized by village.

We invited two leaders from each of the 42 registered communities to participate in our survey and in-depth interviews. All but two leaders from different communities responded to our invitation and each in-person interview took about two and a half hours. Our protocol covered general questions about the community organization and several aspects related to effects of titling. It included both closed and open-ended questions in five sections. In the first section we gathered information about the leader interviewed. In the second section we asked questions

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<sup>20</sup> It is not necessarily the case that only one *vereda* applied for one title. In some cases two or more *veredas* joined the same CC.

<sup>21</sup> Buenaventura (Valle del Cauca), Tumaco (Nariño), Quibdo (Choco) and Guapi (Cauca), with cities listed before their respective department.

<sup>22</sup> The Pacific Coast is a region greatly lacking in infrastructure and thus very difficult to access. There are no roads and the transportation is mainly done by boat. Sending a mail questionnaire was unfeasible.

<sup>23</sup> The reasons why some CCs have not been able to obtain titles varies, but in the majority of the cases is related with the fact that other actors are clamming legal rights over the territory. There are also some almost urban CCs that were formed within the last year and are just starting the process.

about the titling process, including conflicts and consequences. The third section asked about Community Board functions and structure. The fourth section asked about rules and procedures used to manage the territory and its resources; special emphasis was given to the rules managing timber exploitation. In this section we also gathered information about individual land holdings and perceptions about the informal land market. The final section covered general information about the community, such as economic activities and the main problems affecting the CC.

Incoder and PCN coordinated the logistics and invited the leaders to meet with the research team in the city of Buenaventura. The leaders interviewed were members of the initial or current Community Board. We did two main visits to the city of Buenaventura during 2007 and 2008.<sup>24</sup> In the first visit, we conducted a pilot study of our protocol with four communities (one CC by watershed and three CCs by village).<sup>25</sup> The information provided by these communities is not included in this paper since our new protocol was adjusted to reframe and incorporate new questions. We also interviewed environmental authorities, regional leaders and NGO officers to obtain additional information and a better understanding of the regional context and the titling process.

In the second visit, we launched our final protocol with 38 communities (25 titled CCs and 13 non-titled CCs). Table 1 summarizes the number of CCs considered in our final protocol, discriminating by titled and non-titled CCs, and CCs by watershed and by village. We interviewed a total of 50 leaders from titled CCs and 24 leaders from non-titled CCs.<sup>26</sup>

## 4. Results

We begin by presenting demographic information from the leaders interviewed and general information about the CCs of our sample. Table 2 shows that the majority of leaders interviewed were male, on average did not finish high school, and were less than 50 years old. Leaders of both titled and non-titled communities have similar characteristics.

The titled CCs in Buenaventura represent 18% of the total titled CCs at the national level; and encompass almost 340,000 hectares, benefiting more than 6,000 families. Table 3 reports the average year in which the CCs were created and registered in the mayor's office of Buenaventura and the year when the title was received. It also shows the average and range for the population, number of families and territory size for the titled communities. We also include this information by type of CC (watershed versus village). Unfortunately, this information is not available for communities without title because it is collected by Incoder, when its staff conducts the official visit to grant the title.

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<sup>24</sup> Previous visits to the area were done during the summer of 2004 and 2005 were the author conducted Field Experiments and survey inhabitants of collective territories.

<sup>25</sup> In this pilot phase we also interviewed leaders from two communities from neighboring departments.

<sup>26</sup> In two non-titled CCs we only had one leader per community.

There is great variability in both size of the territory and number of inhabitants. The average watershed CCs are more than ten times the size of village CCs, with more than seven times in population. Overall, there is a positive and strong correlation between total area and inhabitants (0.95). The size range of the collective titled territories also depended upon the existence of other actors with rights and titles over the land: indigenous communities,<sup>27</sup> private individuals,<sup>28</sup> other CCs, national parks or land reserved for national security (and thus controlled by the National Army). Watershed CCs are, in general, quite inaccessible, and transportation is mainly done by boat. CCs organized by village in some cases have access to secondary and principal roads and in general are closer to urban centers. On average CCs by watershed were formed one year earlier than CCs by village.

### **Mixed Property Regimes**

The new system of land titling implies a complex regime in which old and new forms of property coexist. Before it, community members and outsiders (e.g. peasants from other regions of the country) held de facto private property rights for farm land that were inherited or claimed based on work efforts (e.g. deforestation in small scale and “slash-and-burn” agriculture). In many communities there was also an informal land market among community members and outsiders. For example, before the land titling in four of the currently titled watershed communities, on average 42% of the individual plots were inherited, 20% were obtained by deforestation on a small scale and 29% were bought in the informal land market. The remaining 8% include other types of land holding such as renting and borrowing.<sup>29</sup> Forest land was considered common land and was open to both insiders and outsiders. Timber exploitation was an individual or group-level activity and user rights to extract and sell timber were determined by work efforts. Commercial exploitation by outsiders through “concessions” from the Colombian government was also prevalent.

Despite the new collective titling, many of the features of the old regime are still in place. Forest continues to be considered common land although it is no longer operated under an open access regime. Only community members are allowed to exploit and sell the resources, and they continue to do so individually or in groups. Outsiders are prohibited from accessing the territory to extract timber or claim land rights based on work efforts unless some sort of agreement is arranged with the community. Each community can agree upon its own terms regarding timber exploitation with outsiders. Even though farmland is legally part of the collective title without formal alienation rights, it is still managed under a system of informal private rights or individual ownership.<sup>30</sup> This is consistent with reports in the literature where it is recognized that common

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<sup>27</sup> Land titling for indigenous communities was operationalized under a different legal framework developed before Law 70. Thus, when black communities started the titling process many interethnic conflicts arose between Afro-Colombian communities and indigenous communities. However, in most of the cases, written agreements were achieved among ethnic groups as a condition for the formalization of the titles.

<sup>28</sup> Some black families but also outsiders held titles of the land. Therefore these titles were excluded from the collective title.

<sup>29</sup> This information was collected by Incoder and reported in the CCs’ applications for the title.

<sup>30</sup> There are some experiences with collective agriculture projects but mostly for education purposes and promoted by external organizations.

property systems do not exist in isolation, and are usually developed together with individual ownership of land parcels (Ostrom, 2001).<sup>31</sup>

In the CCs of rural Buenaventura each family might own one or several plots but landholdings are not evenly distributed among community members (i.e. families) within the collective territory.<sup>32</sup> The change in the property right regime did not replace old forms of informal private property holding within the collective territory. Indeed, the new system respects and maintains the individual landholdings that existed before the titling but now are legally part of the collective title. This coexistence has promoted new rules regarding individual property within the collectives' titles, to adapt community members' activities to the new system. Some communities, for example, have defined rules related to migration and farm land with informal ownership. These CCs have determined the number of years (between five and 20 years) in which the individual informal property right will be respected if a family leaves the community. After that time, if the family does not return to work on the farm land, it will be reassigned to a different family or will become part of the common lands.

Nor did the new collective titling system eliminate the preexisting informal land market. The existence of active land markets even when individual property rights are informal has also been identified in several case studies (for a summary see de Janvry et al. 2001). In the majority of the CCs analyzed, individual farmland continues to be sold and bought in the informal land market where both insiders and outsiders are able to participate, even though selling land to outsiders is now prohibited by law. Only in three titled CCs and two non-titled CCs did both leaders not mention the market as a current mechanism to obtain farmland within the collective title.<sup>33</sup> However, according to the leaders interviewed, no one keeps records of the number of transactions or prices. Therefore, all data about the informal market is based solely on the leaders' perceptions.

According to the leaders interviewed the informal land market is still active, although with a decreasing tendency. In 40% of the titled CCs both leaders agree that the number of transactions among community members has decreased or disappeared.<sup>34</sup> Similarly, in 40% of the titled CCs the two leaders agree that the number of transactions with outsiders has decreased or

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<sup>31</sup> A classical example cited by Ostrom (2001) is the mixture of property right system of Swiss peasants in the Alps. In this case, the same community divided agriculture land into separate family owned parcels but grazing lands were communal property systems.

<sup>32</sup> In 60% of titled communities both leaders affirm that all community members own some land for agriculture activities, but also in 56% of titled communities both leaders perceive that there is concentration of the land within the collective territories where few families have more agricultural land than the rest of families in the community. However, concentration of the land is not a consequence of the collective titling. In only two CCs did leaders reported that the community board was discussing how to redistribute land that is not currently cultivated. Community leaders do not perceive the concentration of land holdings to be a problem and large ownerships of farm land from the same family is recognized as a traditional right obtained by elders who cultivated the land.

<sup>33</sup> Recall we interviewed two leaders per community council. Thus, unless is specified otherwise, we always refer to the cases in which both leaders agree on their responses in each of the community councils.

<sup>34</sup> In the rest of the titled communities there is not an agreement about the tendency of the transactions among the leaders interviewed.

disappeared.<sup>35</sup> In fact, in the non-titled CCs, leaders also perceived a decreasing tendency in the number of transactions in the informal land market. In 66% of the non-titled CCs, both leaders agree that the number of transactions among community members has decreased or disappeared, and in 33% of the non-titled CCs the two leaders agree that the number of transactions with outsiders has also decreased or disappeared.

We do not claim that the decreasing tendency in the number of transactions of the informal land market is due to the collective titling of the land. However, based on our discussions with the leaders and others in the region, we found a common perception that buying farmland is no longer appealing because a legal individual title is not feasible under the new legislation. People who continue to buy land do so to pursue specific productive projects, including raising illicit crops.<sup>36</sup>

### **New Local Authorities**

Before 1991, black communities were organized in dispersed villages known as *veredas*. The villages formed part of the rural areas of specific municipalities. In each village the formal municipal authority was represented by a police inspector or/and by the neighbor's community association (JAC). The aim of these community associations was to organize neighbors for communal projects, but they lacked authority relating to the management of the territory or its environmental assets.

The creation of the CCs changed the political landscape of the region. For the first time in history, these black communities were recognized as an ethnic group and as the authorities in their territories: they are now more visible and powerful. This, among other things, has helped to redirect government resources to fund and promote infrastructure and productive projects in the community councils. In fact, in the titled CCs all but one leader confirmed that post-formation, the community has received more aid and productive projects from government agencies; 58% of the leaders from non-titled CCs affirmed the same.

CCs and Community Boards are also new from the community perspective. In the majority of the CCs old forms of organization were removed (police inspectors and JACs), and leaders perceived a new role for the Community Boards as they became the new local authorities. When asked about the differences between old forms of government (JACs) and Community Boards, 32% of leaders in titled CCs mention that the Community Board is now in charge of the administration of the territory. In the communities that have not received titles, the management of the territory is also identified by 25% of the leaders as an important difference between JACs and Community Boards. Nevertheless, in the non-titled communities a greater percentage of leaders (21%) compared to the leaders in the titled communities (6%), do not yet perceive any difference among JACs and Community Boards. Other leaders consider the Community Board to be the final authority, more powerful than JACs, more autonomous than JACs, to have more community participation or to receive more government and institutional support than the

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<sup>35</sup> In the rest of the titled communities only in one CC both leaders agree that the transactions had increased, in another CC both leaders mention that the market never existed and in the remainder of CCs there was not an agreement about the tendency of the market.

<sup>36</sup> In fact a lot of people just "borrow" the land with or without payment to pursue productive projects.

previous forms of organization. In general, among the leaders interviewed there is a sense that the Community Boards are more powerful and have more control of the territory than the JACs.

Nevertheless, the Community Boards are still going through a process of authority building which includes the recognition by community members of the new authority and the formalization of community rules. For example, in 44% of titled CCs and 77% of non-titled CCs at least one leader mentioned the need for a police inspector because the Community Boards do not yet have enough authority to deal with things such as crime and other illegal behavior.<sup>37</sup> Moreover, Community Boards are not fully recognized as the environmental authorities in the territory. In many cases, co-management strategies with the external environmental authority CVC have been understood by communities as aid projects delaying the process of community empowerment and participation.

Some CCs depend on one or two local leaders who make all the decisions; this appears to delay the processes of community participation. The politics in the region are also very complicated, and internal divisions within the black social movement have also affected the process of community building. Currently, CCs in Buenaventura are associated under three different groups. One group is part of the PCN, which mainly groups the councils organized by watershed. Two other groups are organized under the lead of powerful regional leaders who control all the decisions, even (in some cases) at the Council level, and mediate between the CCs and the state and municipal government. This, coupled with very low levels of formal education and high rates of illiteracy, has deposited the power of the region in the hands of a very few individuals. The rest of CCs are independent and are not affiliated with any association.

Another issue that is delaying the process of authority building is that the Community Boards are not financially autonomous from the municipal government. Thus, the Community Boards do not have resources for important activities such as monitoring new management rules.<sup>38</sup> CCs are the highest authority in the territory but unlike the indigenous *resguardos*, CCs in black communities do not receive monetary transfers from the municipality or the national government.<sup>39</sup> Only in 32% of the titled CCs (and 31% in the case of the non-titled CCs) has at least one leader reported that the Community Board has some financial resources, which come mainly from productive projects or aid from external organizations. However, in most of the cases these do not represent a permanent source of income. Some communities have started to discuss creating internal taxes based on timber exploitation but none has been able to implement these procedures. Also, even though they function as public officers, members of the Community Board do not receive salaries.

### **From Open Access to Common Property Regime**

In Table 4 and 5 we report the answers to different open-ended questions related to the effect and consequences of titling or the process of titling (this phrase names the process of CCs formation,

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<sup>37</sup> Some leaders mentioned that currently it is better not to have police inspectors due to the presence of illegal guerrillas who in some cases have taken on the role of law enforcement.

<sup>38</sup> However, I would say that not all the CCs have the infrastructure or necessary organization to operate their own funds. Many of these communities are not yet ready for a complete decentralization process.

<sup>39</sup> The transfers received by the Indigenous *resguardos* are for specific destinations such as education and health.

and title application in non-titled CCs). Several answers, especially in the titled communities, implied an increased perception on the respondents' part that the territory is more secure. For example, answering the question of how the titling (or the process) has changed the community, a third of leaders in the titled CCs say that they now are able to prevent intruders from entering the territory and harvesting resources. In fact, this is the most common answer for the titled CCs, and is statistically different from the non-titled communities where none of the leaders gave this answer ( $p=0.00$ ). Also, 18% of the answers ( $p=0.4$ ) from titled and non-titled CCs mention that titling or the process of titling has provided more secure rights over the land, which is another way to think about the notion of closure of the commons. Roughly the same percentage of leaders (14%) in titled and non-titled CCs mentioned that titling or the process of titling has changed the notion of the territory's ownership, so that now the land is understood as something that belongs to the community. Other common answers for leaders of both titled and non-titled CCs speak to more institutional recognition from regional and national government and less individualistic behavior of community members. However, the most frequent answer of the leaders in non-titled communities related to the community's access to more productive projects and more public services (25%). Interestingly, this answer is statistically different from the titled CCs in which only 10% of the leaders mentioned or thought about the access to productive projects and public services ( $p=0.04$ ). Finally, only 2% of leaders in titled CCs and 8% of leaders in non-titled CCs perceived no change in the community ( $p=0.1$ ).

These answers are complemented by answers to a similar question on the change in the leaders' perception of the territory due to titling or the process of titling. For the majority of those interviewed, the new regime generated new identities and new perceptions of the territory (Agrawal, 2007). However, about twice as many leaders in the titled CCs answered that they perceived a positive change in the notion of belonging of the land (42%) compared to the leaders in non-titled CCs (20%). This difference is statistically significant ( $p=0.03$ ). Other common answers addressed the notion of more secure rights in both titled (6%) and non-titled CCs (16%) and the idea of a territory where intruders cannot enter (around 12% in both type of CCs). Surprisingly, 25% of leaders in non-titled communities mentioned that now they are more concerned with the conservation of natural resources, though this was only mentioned by 3% of leaders of titled CCs, who at least in theoretical terms should be more concerned about the conservation of natural resources ( $p=0.00$ ).

Finally, when asked about the consequence for the communities if the title did not exist, 38% of the leaders in titled communities affirmed that intruders would enter the territory. For those who do not yet have the title only 17% of leaders affirmed that the lack of title implies that they cannot prevent intruders for entering their regions. Leaders of the non-titled CCs also think that the lack of title has prevented them from having further access to productive and infrastructure projects.

Thus the notion of "closure of the commons," that is, a shift from an open access situation to a formal common property regime, in which only community members are authorized to use the resource, is more prevalent among leaders of titled CCs. In titled CCs, the leaders' perceptions suggest that the change in the property right regime is helping to prevent encroachment by external intruders (30%), and is also changing the notion of belonging of the territory since now is perceived as belonging to the community (42%). Leaders of non-titled communities are



beginning to see a change in the notion of belonging (20%) but the access to productive projects and services were identified as the most important potential consequence of titling. This is important because the race to obtain benefits could generate rent-seeking behavior, which in turn could divert the original intention to manage the territory.

## **Managerial Innovations**

Land titling has indeed led to more formalized rules and procedures than had previously existed for managing the territory, based on the reports of the leaders interviewed. However, many of these rules lack implementation, including socialization of new rules for community members, and monitoring and enforcing of sanctions for non-compliance. Many aspects of implementation still rely on the external state environmental authority (CVC) and the relation between CVC and the Community Councils has not yet evolved into an efficient co-management strategy. Instead it reveals an early decentralization process that is still in the process of building internal authority.

In this section we focus on the rules and procedures developed by CCs for the management of timber exploitation. We chose timber management as an example because forest land is also part of all titled land sections in question, and because most of the communities reported timber exploitation as their main economic activity. Also timber is a major product for commercialization, as indicated by the fact that in 48% of the titled CCs both leaders agreed it is used mainly for trade outside the community.

We begin by presenting the percentage of titled CCs in which the two leaders agree that the Council Board had designed rules for timber exploitation after the formation of the CC. In 64% of titled CCs, both leaders claim that the Council Board designed one or more rules to manage timber exploitation<sup>40</sup> (Table 6). The most common reported rules are size requirements (for eight CCs), prohibition of particular species (five CCs) and commercialization (seven CCs), explicitly banning the exploitation done by outsiders (five CCs) or a complete ban of timber exploitation done by any person, insider or outsider (three CCs).<sup>41</sup> The remaining 36% of titled CCs are either in the process of developing rules (one CC) or did not agree on whether they designed rules for timber exploitation.<sup>42</sup> For all but three titled CCs without rules timber exploitation was mentioned as one of their principal activities.

Interestingly, rules for timber exploitation have been developed in both watershed councils and councils by village (Table 6). Four out of the six titled CCs by watershed included in this analysis reported having rules for the timber exploitation. This is an important result because in principle cooperation and collective action should be easier with fewer users (See Arnold, 2001). However, watershed councils are for the most part members of *PCN*, the regional organization that has invested in a long process of training and education to emphasize the importance of

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<sup>40</sup> From this group of CCs only 3 leaders (from different CCs) mentioned that the community designed rules to manage the forest before the formation of the CCs.

<sup>41</sup> According to Agrawal and Ostrom (2001, page 490) these are considered operational rules because “determine whether there are constraints on the timing, technology and purpose of use, and quantity of resource units harvested”.

<sup>42</sup> The source of disagreement in all cases was the same: one leader claimed they have designed rules but the other leader said they are still in the process of designing those rules.

resource conservation and management. Watershed Councils are also supported by external organizations such as the World Wildlife Fund (WWF), which has invested a lot of resources in capacity building to manage the territory and its natural resources. Thus, a possible explanation is that these processes have diminished the negative effects of more users.

Titled CCs with rules have fewer hectares on average than titled CCs without rules but greater population density. This result is driven mostly by the two titled watershed CCs that do not have rules, and have a larger territory but lower population density compared to the other titled watershed CCs. On average, both CCs with and without rules received the title six years ago (Table 6).

Non-titled CCs have also established new rules for timber exploitation since the formation of the CCs (See Table 7). In 69% of non-titled CCs the two leaders interviewed claim that the Council Board has defined one or more rules to manage timber exploitation.<sup>43</sup> In the remainder of non-titled CCs there was no agreement among the leaders interviewed on whether they have rules for timber exploitation but in only two of non-titled CCs without rules is timber exploitation mentioned as the main activity in the community.

Thus, not only the legal right (the title per se) but also the process of titling and more importantly the formation of CCs have promoted new rules to manage the forest. The formation of the CCs seems to have fostered a process of empowerment that, among other things, has brought to the attention of local leaders the importance of managing the territory. However, there are questions regarding how effective the implementation of these new rules is, including how developed the monitoring and sanctioning systems are.

For example, when asked who is in charge of rules monitoring timber exploitation, in 75 % of the titled CCs with rules, both leaders reported the Community Board or “all the community.” That is, they do not yet have a person or group exclusively in charge of this activity. Only three leaders from different CCs mentioned an environmental coordinator within the Community Board. In the rest of CCs only one CC mentioned a group different from the Board as being in charge of the monitoring, and in the other three CCs at least one leader says that no one is in charge of the monitoring system. Thus, even though there has been a process of formalizing the rules, the monitoring system is still quite informal. Similarly, in all the non-titled CCs with rules, at least one leader mentioned the Community Board or “all the community” as the entity in charge of the monitoring and sanctioning. Only one leader mentioned a specific users’ group in charge of the monitoring and sanctioning and two leaders mentioned the CVC. Five leaders did not answer this question.

Regarding the existence of sanctions, 88% of titled CCs claim to have sanctions for non-compliance: in all CCs at least one leader mentioned timber confiscation; in 71% of CCs at least one leader cited verbal punishment; and in 36% of CCs at least one leader cited levying fines. Leaders also mentioned other sanctions, such as reforestation or reporting to external

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<sup>43</sup> From this group only 3 leaders (from different CCs) mentioned community had rules to manage the forest before the formation of the CCs.

authorities.<sup>44</sup> However, when asked who was in charge of enforcing such sanctions, the majority of the leaders mention CVC, particularly in the case of timber confiscation.

Similar results are obtained for non-titled CCs. In all but one non-titled CC, at least one leader mentioned sanctions and in the majority of the cases CVC was reported as being in charge of enforcing the sanctions. Thus, communities still rely on the CVC for the sanctioning mechanisms, since most of the new rules defined by CCs are indeed the same as the rules originally put in place by the CVC. Many leaders, in fact, are now questioning who should be in charge of monitoring and enforcing the rules. This is still an open question since many feel that should be the CVC's responsibility given that CCs do not have the capacity or monetary resources needed to undertake these activities.<sup>45</sup>

In the context of community-based management, some people might argue that an informal system could be as effective as a formal one. But a closer look at the leaders' responses shows that most of them believe the contrary to be true. In 63% of titled CCs with rules, at least one leader mentioned that sanctions should be more formal or stronger than those of the current system. In 77% of non-titled CCs with rules at least one leader agrees with this statement. Thus the majority of leaders agree on the need for a more formalized system since peer pressure and verbal punishment are apparently not enough to control resource exploitation, particularly timber.

This evidence could also be understood as an example of a co-management strategy in which the community designs rules while the CVC does the monitoring. However, we do not think this is yet the case. Only in 44% of titled CCs with rules and in 66% of non-titled CC with rules does at least one leader report that someone has been punished. Even though in the majority of CCs timber exploitation is the main economic activity, only in five titled CCs do both leaders report holding a permit for timber exploitation issued by CVC and none in the non-titled CCs. This implies that the majority of the timber in the market is illegal because is exploited without the authorization of the CVC. Furthermore, only in three titled CCs do both leaders agree that the natural resource management plan has been implemented even though 16 CCs have written such plans with the support of the CVC, among others. In the case of non-titled CCs, only two CCs have a management plan, even though it is not yet implemented.

### **Factors Affecting the Process of Institutional Building**

The consolidation of a local participatory government implies a social and cultural process based on empowerment, training and community organization that could not occur immediately. As we mentioned before, the new local authorities are still growing, learning, and maturing. The definition of property right is not enough to guarantee the sustainable use of the resources. The titling process should be followed by a process of capacity building for leaders and community members. This has not occurred beyond isolated efforts to train leaders with relevant tools for the management of the territory.

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<sup>44</sup> Reforestation is considered a sanction because when a user is caught doing a non- authorized clearing, he has to spend time/effort in doing reforestation activities as a social service to the community.

<sup>45</sup> The CVC is proposing a system of community forest keepers but this program is still in early stages of implementation.

The role of the external state environmental authority, CVC, is crucial in the process of institution building and in order to succeed in decentralizing natural resource management, the joint management strategies need to be clarified (Arnold 2001). Moreover, the titling process as a conservation strategy implies that the institutional design needs to be enhanced by alternative productive projects. These would generate alternative sources of income for community members who depend on the extraction of natural resources.<sup>46</sup>

Another factor that is delaying the process of institution building in the management of the collective territory is that resources' is not yet perceived as a problem. Thus, the management of natural resources is not necessarily a priority on the leaders' agenda. When asked about the main problems faced by their communities, only 25% of leaders in the titled communities and 13% in the non-titled communities answered by citing something related to natural resource scarcity or other problems regarding the territory. They are more concerned with economic problems (lack of income, employment, poverty levels) and the lack of public services. Fifty percent of leaders in the titled and 29% of leaders in the non-titled communities state economic problems as the main concern. Also, 50% of the leaders in the titled communities and 58% in the non-titled communities mention some public service or infrastructure problems. In fact, when asked directly about problems related to environment, 24% leaders from titled CCs and 12.5% leaders of non-titled CCs answered there were none. Only 35% leaders from titled CCs and 42% leaders from non-titled CCs answered timber scarcity or illegal exploitation as a current problem.

Finally, the dynamics of the population also affect the new property regime, though not because of classical population pressure. The majority of leaders interviewed do not consider population growth and land scarcity to be problems faced by the CCs. Only four leaders mentioned concerns about this potential problem; the rest are more worried about low population density due to outmigration and family planning. Many think that the increasing outmigration to urban centers, especially from young inhabitants, is disrupting the process of community building.<sup>47</sup>

### **Armed Conflict and Illegal Crops**

Communities can design sustainable institutions if and only if they are able to establish themselves as internal authorities, and if they are able to cope with external forces crucial for the establishment of management institutions (Agrawal, 2007). Titled communities have the legal instrument to fight the intrusion of legal companies. As a consequence of this, communities can now more easily exclude outsiders. However, a legal title is not enough to fight illegal activities. To prevent this type of intruders (or displacement) CCs need more than well-defined property rights. However, the CCs are not strong enough to protect the inhabitants of the region from

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<sup>46</sup>Alternative projects need to solve structural problems related to the lack of financial credit in the region. At the individual level, users cannot access the traditional financial system since land cannot be used as collateral. Some Community Boards had made agreements to certify individuals' credits as a tool to guarantee payments. But only specific banks and programs have accepted this form of peer pressure as collateral.

<sup>47</sup> In fact, compared to other collective territories in the developing world such as India, the collective territories of Afro Colombian communities do indeed have low population density. For example the average population density of the titled CCs by Watershed is 7.36 persons per square kilometer (sq km) and 11.18 persons per sq km in the CCs by Village. In India the population density in the village councils of Kouman, created to manage the village forest, is 190.69 persons per sq km (Somanathan et al. 2002).

armed groups and drug trafficking, no matter what benefit they might gain from the new property regime.

The Colombian armed conflict has greatly affected the Pacific Region in recent years. In the early 1990s FARC<sup>48</sup> (the main illegal leftist guerrilla group) started to make its presence known in the region and as a consequence, so did the Paramilitaries (right-wing illegal groups). Both groups aimed to gain territorial control over a region rich in natural resources (e.g. timber and gold), which was also seen as a key conduit for the weapons and drug trade. The presence of both groups increased the armed confrontation and the action against civilians. Armed groups (especially the Paramilitaries) have displaced many families, and even entire communities. In fact, according to Escobar (2003), displacement has increased with the process of titling of collective territories. This violence has disrupted the process of community building and empowerment of the territory. Black leaders have become targets of this violence because the land titling and the consolidation of the community councils as local authorities are seen as barriers for the territorial agenda of armed groups.<sup>49</sup>

In 80% of titled CCs surveyed, at least one leader reports that the community has suffered some form of displacement after the titling.<sup>50</sup> In the non-titled CCs there has been less displacement (mentioned by only 23% CCs) because most of these councils are less rural than the titled communities or are located next to military bases (See Table 6). However, even under the threat of displacement the land titling has been a guarantee for the displaced communities. Without the land title, many displaced communities would have lost their lands and would have not been able to come back. Now, there is a legal framework that prohibits others from legally claiming land rights even if Afro Communities have been displaced. Thus, the displacement of community members or entire communities has not prevented titled CCs from designing rules to manage their forest. Only five CCs out of 20 that have suffered displacement had no rules for timber exploitation.

The introduction of illicit crops has also affected the Afro communities in rural Buenaventura by displacing many traditional activities and threatening the management process. Despite the efforts of many leaders, some CCs report problems with illicit crops in their territories.<sup>51</sup> Many negative effects (social, economic, environmental) can be attributed to the expansion of illicit crops including the funding of the illegal armed groups and the clearing of forest areas in fragile ecosystems. Moreover, the national government strategy to eradicate the illicit crops included, until very recently, the spread of a toxic herbicide (*glifosato*) by air which not only kills other legal crops and destroys forest cover but also pollutes water sources. Nevertheless, the spread of illicit crops does not seem to correlate with the management, or intended management, of a legal activity such as timber exploitation. CCs that report illicit crops in their territories in many cases also reported rules for managing resources such as timber.

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<sup>48</sup> *Fuerzas Armadas Revolucionarias de Colombia*.

<sup>49</sup> This is clearly captured by the testimony of a PCN leader interviewed by Escobar (2003): “Displacement has altered the patterns of in- and out-migration that have characterized the Pacific since 1950’s and 1960’s, making it difficult or impossible for people to return to their riverine communities; this ends up modifying the use of land, the traditional production systems, the spatial distribution of population and resources, etc.”.

<sup>50</sup> There is no data regarding the number of families displaced.

<sup>51</sup> We do have the percentage of titled and non-titled CCs with illicit crops based on leaders’ reports. However, due to security reasons we choose not to report this information.

## 5. Final considerations and further research

Our project is not an attempt to identify the factors leading to the sustainable management of the commons ( see Wade, 1988; Ostrom,1990; and Baland and Platteou, 1998). Rather, it is an effort to examine the development of institutional arrangements that occurred after the change in the property right regime in the Colombian Pacific.

The formal collective title did not replace informal individual property rights (within the collective title): those rights are still respected and supported by customary laws, e.g. the individual right of alienation for farm land. Thus, the new system implies a complex regime in which different layers of property rights coexist within the new formal title.

The collective titling of the land defined *de jure* territorial borders, that before were informally defined based on historical users' rights. Before the land titling, communities had to develop some institutional arrangement in a situation of costly border control. Now, under the new circumstances, the process of titling has promoted the formalization of rules and procedures to manage the territory. Our results reveal that not only the title to the land but also the formation of CCs and the process of application for the titling have changed the way communities perceive and manage their territory and its timber resources. In fact, new rules have been designed for other activities such as fishing, mollusk-harvesting, mining and hunting in both titled and non-titled communities.

However, the formalization of rules does not yet translate into a formal sanctioning and monitoring system. This lack of enforcement brings a cautionary note to the apparent success of this process, since punishment in case of default has been identified as one of the requirements for successful community management of common pool resources (de Janvry et al. 2001).

This work examines information at the community level and from the leaders' perspective in the specific context of Buenaventura in Valle del Cauca. To complete the analysis, further research should be conducted to measure the evolution and effectiveness of these new institutions. In particular, it is important to correlate forest cover with institutional change using satellite images and spatial econometrics. For this type of analysis others areas of the Pacific Region should be included where the challenges for institution building might be different. The study should also be extended at the user level to understand individual behavior within the collective territory, and to other ethnic groups with collective titles in the region in order to understand the effect of culture and social context on the building of new institutions. Further research on the distributional effects of an informal land market within a collective territory seems also as a promising new line of research.

The design of new rules and procedures to manage the commons is an ongoing process. What we found today may rapidly change next year. Thus, the analysis of the effect of titling on the new institutions should also be a dynamic process; this study is just a beginning. Our results are crucial to the understating of titling and should be taken as the benchmark or base line for future research.

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**Table 1.** CCs participating in the final protocol

	<b>CCs by Watershed</b>	<b>CCs by Village</b>	<b>Total</b>
<b>Titled CCs</b>	6	19	25
<b>Non-titled CCs</b>	1	12	13
<b>Total</b>	7	31	38

**Table 2.** Demographic Characteristics of Community Leaders Interviewed

<b>Variable</b>	<b>Leaders from Titled CCs</b>	<b>Leaders from Non-titled CCs</b>
	<b>N=50</b>	<b>N=24</b>
Age	46.6	48.3
Years of formal Education	8.3	9.6
Male	82%	83%

**Table 3.** Summary of Titled CCs

<b>Variable</b>	<b>Titled CC</b>	<b>Titled CC</b>	<b>CC by Watershed</b>	<b>CC by Village</b>
	<b>Average</b>	<b>Range</b>	<b>N=6</b>	<b>N=19</b>
Year Formation CC	1998	1996-2005	1997	1998
Year Received Title	2001	1998-2006	2001	2002
Number of Habitants	867	70 - 5,281	2,533	340
Number of families	209	13 - 1497	605	84
Size (hectares)	10,557	20 – 75,710	34,363	3,040
Correlation coefficient between size and number of inhabitants	0.93			

**Table 4.**

<b>Questions</b> <i>(in italic for non-titled CCs)</i>	<b>Most Common Answers</b> (Show percentage of leaders)	<b>Titled CCs</b> <b>(Number of leaders=50)</b>	<b>Non-titled CCs</b> <b>(Number of leaders=24)</b>
<b>How the titling of the land has changed the community?</b>  <i>How has the process of applying for the land title changed the community?</i>	<b>Prevent Intruders from Entering</b>	<u><b>30%</b></u>	<u><b>0%</b></u> ***
	More Secure Rights/Legal Rights	<u><b>18%</b></u>	<u><b>16%</b></u>
	Change Notion of Belonging	<u><b>14%</b></u>	<u><b>16%</b></u>
	More Concern for Natural Resource Conservation	20%	4% **
	More Institutional Recognition	14%	12.5%
	Less Individualistic	14%	12.5%
	More Productive Projects & Public Services	10%	25% **
	Can't Sell Land	6%	12.5%
	Nothing	2%	8%
Other	26%	7%**	
<b>Does the community have changed its perception of the territory since the titling of the land?</b>  <i>Does the community have changed its perception of the territory with the process of titling?</i>	Notion of Belonging	<u><b>42%</b></u>	<u><b>20%</b></u> **
	Intruders Can't Enter	<u><b>12%</b></u>	<u><b>8%</b></u>
	More Secure Rights/Legal Rights	<u><b>6%</b></u>	<u><b>16%</b></u> *
	Managing Territory (Rules)	12%	0% **
	Can't Sell Land	6%	12.5
	Concern for Natural Resource Conservation	3%	<b>25%</b> ***
	No	10%	16%
	Other	22%	16%

\*\*\* Significant at 1%, \*\* 5%, \* 10%. We used a two sample test of proportion to test the null hypothesis of equal proportion for titled and non-titled CCs.

**Table 5.**

<b>Question</b>	<b>Most Common Answers</b> (Percentage of leaders)	<b>Non-titled CCs</b> <b>(Number of leaders=24)</b>
<i>What has been the most important consequence for the community of the lack of title?</i>	Less Productive and Infrastructure Projects	<b>33%</b>
	Can't Claim Legal Land Rights	21%
	<b>Can't Prevent Intruders from Entering</b>	17%
	Nothing	12.5%
	Other	42%
<b>Question</b>	<b>Most Common Answers</b> (Percentage of leaders)	<b>Titled CCs</b> <b>(No. of leaders=50)</b>
Without title what would happen to the community?	Intruders will Enter	<u>38%</u>
	Can't Defend Land	10%
	Less Natural Resources	8%
	More Interethnic Conflicts	6%
	Less Organization	6%
	More Displacement	6%
	More Coca Crops	6%
	More Land Sold	4%
	More Individualistic	4%
	Nothing	4%
	Other	30%

**Table 6.** Titled CCs with and without Rules

<b>Titled CCs</b>	<b>With Rules</b>	<b>Without Rules</b>
Total CCs N=25	16	9
No. of CCs by Watershed	4	2
No. of CCs by Village	12	7
Average Size (has)	9,846	11,822
Average No. Habitants	940	736
Average No. Families	241	153
Average Density	10	16
Average years with title	6	5.8
CCs without Displacement	1	4
CCs with some Displacement	15	5

**Table 7.** Non-titled CCs with and without Rules<sup>52</sup>

<b>Non-titled CCs</b>	<b>With Rules</b>	<b>Without Rules</b>
Total CCs N=13	9	4
CCs by Watershed	0	1
CCs by Village	9	3
CCs without Displacement	8	2
CCs with some Displacement	1	2

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<sup>52</sup> Information about population and area is not available for non-titled CCs.



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