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The local politics of the floodplain tenure in the Amazon

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The local politics of the floodplain tenure in the Amazon

Fabio de Castro

Abstract

Research on community-based management systems (CBMSs) has been often grounded on monolithic institutional, social and ecological perspectives with focus on the commoners as the only local actor, collective territorial rights as the only local tenure system, and the managed resource unit or ecosystem as the only contested resource driving collective action. However, CBMSs are embedded in local social-ecological systems usually characterized by multiple ruling systems, different local groups, and heterogeneous ecological systems. In this paper I discuss how the floodplain tenure system is negotiated and rearranged between two local groups – community residents and large landholders. This complex and dynamic arrangement comprises of three layers of property rights, which are combined according to the changing ecological and social context. Based on longitudinal empirical data, spanning 20 years of research, I describe the history of contemporary human occupation, and the most recent socioeconomic and institutional changes in the region, in order to unpack the dynamics of the floodplain tenure in the region. I conclude that assumptions that integration of local management systems into a formal legal framework suffices to achieve efficient co-management systems is rather simplistic. Despite major structural changes in the formal tenure framework, power relations between different local users may remain unchanged unless local perceptions and everyday life practices of power relations are changed. Unpacking the multiple ruling systems and everyday life practices that mediate interactions between different local actors is fundamental to understand how the commons are appropriated at the local level. Therefore, a local contextualization of the social and ecological structure is crucial to reveal potential barriers to the development of an inclusive and sustainable production system.

Keywords

Collective action, co-management, Amazon, floodplain landscape, traditional population, fisheries.

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1. Introduction

Local governance of natural resources has gone through major transformation in last two decades. From virtually invisible in conservation research, community-based management systems (CBMSs) have been placed in the center of alternative solutions of state control or private regimes to avoid the tragedy of the commons (McCay and Acheson 1989; Ostrom 1990). Grounded in models of collective action and sustainable production, numerous well documented case studies worldwide focusing on CBMSs supported the development of a robust theory of the commons (Ostrom 2002). As an alternative narrative, this new perspective resonated in advocacy and policy circles not only in the North but also in many countries in the South undergoing democratization process (Wilson et al. 2003; Berkes 2007; Armitage et al. 2008). Often supported by non-governmental organizations, co-management systems usually address power asymmetries between commoners and other users, such as private and state actors (Berkes and Pomeroy 1997). However, despite advances in the recognition of local management systems in formal territorial and environmental governance, several problems stemming from persistent inequalities and different interests among local users remain unresolved.

In this paper, I contend that part of the problem lays on how CBMS research has been grounded on monolithic institutional, social and ecological perspectives with focus on the commoners as the only local actor, collective territorial rights as the only local tenure system, and the managed resource unit or ecosystem as the only contested resource driving collective action (e.g., Ostrom 1990; Berkes and Folke 2000). Moreover, the efforts to make informal local tenure arrangements visible and to present it as a valuable alternative to tackle socio-environmental issues, CBMS advocates have (although often unintentionally) treated local management systems as socially even and the only game in town at the local level. Nevertheless, CBMSs are embedded in local social-ecological systems in which multiple ruling systems and mixed socioeconomic repertoire are shaped and reordered over time and space according to local contexts. Assumptions of homogeneous communities (Gibson and Agrawal 2001) and single local ruling system (Castro et al. 2006) often hide plurality in local social relations, ecological configuration, and tenure systems.

Complexity of social relations is usually contemplated in co-management research and practice, as commoners face new interactions with a number of state and non-state actors (Berkes and Pomeroy 1997) in which power relations play major role (Cash et al. 2006). Interestingly, similar analytical focus has not often been applied to asymmetries and everyday politics among local users. In order to understand the multifaceted local context of a CBMS, a diachronic perspective of local tenure systems is needed. Local tenure systems are outcomes of social interactions mediating access to and control over natural resources among different local actors (Peters 1994). In this process, norms, practices, and relationships are called upon by different groups according to their perceptions, social position, and assets in order to exercise their agency (Cleaver 2002). Social embeddedness is complemented with ecological embeddedness, as attributes of the resources and ecosystems may also influence the local rules regulating their use and monitoring by local users (Bromquist et al. 1994). Therefore, local tenure arrangement may encompass multiple systems as they emerge from the interplay between social and ecological change and the negotiation process among different local user groups.

Wetlands are perhaps one of the most illustrative examples of how institutional and social heterogeneity are mediated by local environmental and political processes. These ecologically dynamic ecosystems are characterized by the variation in water level, which creates permeability between water- and land-based resources (Junk 1997). The spatio-temporal variability sets the stage for continuous contestation of access and control over a range of common pool resources between different local actors (Vondal 1987). In this paper I address how the socio-environmental complexity has influenced a dual local tenure system in the Amazonian floodplain. Ironically, the focus of research and practice in making the CBMS visible in the region has shadowed a more implicit tenure system, historically rooted in asymmetric relations between two local actors. As a result, the formalization of CBMS has not only been ineffective to empower marginalized local users, but has also facilitated its crystallization under a formal legal framework. In the following sections, I discuss how the interplay among seasonality, human occupation history, and economic alternatives permeate the social relations between the two local actors in crafting a complex tenure system comprising of two layers of property rights according to ecological diversity and social relations.

The following analysis is based on empirical data collected through a longitudinal research, spanning more than two decades unevenly undertaken in three periods: 1) an extensive ethnographic study in three communities during 1990-1994; 2) irregular visits to numerous communities between 1995-2003; and 3) annual visits to assess the implementation of an ethnic territorial model in the floodplain based on exclusive use rights to the local communities between 2008-2012. Data comprise archival sources, participant observation, and interviews with several informants in communities and local organizations. I contend that temporal, spatial, and social diversity plays a key role in the way floodplain tenure arrangement has been locally crafted, exercised, and negotiated between the two local actors over time. Furthermore, I argue that accounting only for CBMS as the single local tenure system not only overlooks way commoners negotiate access and control over natural resources with another local actor, but may also reinforce (invisible) power asymmetries among them.

The paper is divided into five sections. The next section addresses the socio-environmental history, highlighting spatial diversity and historical roots of the two local actors and tenure systems in the floodplain. This section is followed by a detailed analysis of three layers of tenure systems and another section on the recent co-management system implemented in the region. The fourth section discusses the importance of a robust social contextualization in the CBMS research, followed by a short conclusion on the relevance of a local politics perspective in the commons research and practice in the fifth and last section.

2. Environmental history: diversity and socio-economy

The Lower Amazonian floodplain is an ecologically dynamic and patchy landscape with annual river level oscillation of approximately five meters between the flood and dry seasons. This rhythmic *pulsing system* is essential for the re-composition of water nutrients and highly productive soil sediments (Junk 1997). During the peak of the flood season in May, the landscape is fairly flooded and in the dry season, a patchy landscape characterized by four main subsystems emerge - streams, lakes, grasslands, and natural levees. *Streams* are water channels meandering islands and connecting *lake systems*, a cluster of semi-open, interlinked water bodies located in the inner side of the islands. *Grasslands* are lowlands that gradually emerge during the ebb season, with highly fertile

soil due to annual siltation of nutrients carried in the river. Lowlands usually expand over years through sedimentation process leading to what is locally called as *grown land*. *Natural levees* are higher terrains of seasonally flooded forest. They vary in terms of height, which directly influences in the risks of flooding and landslides (locally called as *fallen land*), a phenomenon that often drive settlement change around the floodplain landscape (Figure 1). This dual dynamic process makes the floodplain a constant changing landscape with permeable boundaries.



Figure 1. Ecological zones of the Lower Amazon floodplain (dry season).

Lakes and grasslands are of particular relevance in this analysis as they represent the most economically important ecosystems, which physically overlap over time - grasslands expand and retract gradually as lakes recedes and enlarge during the ebb and flooding seasons, respectively. Lakes are used for subsistence and commercial fishing by local communities whereas grasslands are used for cattle grazing primarily by large landholders and, more recently, by local community residents (McGrath et al. 2007). The community residents are traditional peasants living in household clusters with kinship ties organized in communities settled along the river and mixed economic repertoire (Castro 2009) while large landholders are informal owners of large extends of floodplain landscape specialized in cattle raising (Merry et al. 2004).

Fertile soil, access through waterways, and diversity of natural resources has made the floodplain a contested area by different social groups since post-colonial times. Throughout the 18th century, large landholders and mixed peasants comprising several social groups, such as Indians, *mestiços*, migrant settlers, and freed slaves, co-resided the floodplain under polarized agrarian structure and power struggles. Harris (2011) describes how the process of gradual reoccupation of the natural levees initiated by mixed peasants followed by land accumulation by large landholders supported by a royal land grants system called *sesmarias*. Forced out by this process, peasants gradually moved to

marginal areas along the riverside while a farmer elite moved to the city nearby from where they oversaw their floodplain landholdings.

Cocoa groves on natural levees and cattle ranching on grasslands dominated the landscape of the floodplains in slave farms established in the 18th century. Floodplain peasants carried out mixed production system of temporary gardens, hunting, wood collection, small stocks and fishing. In the late 18th century, less competitive price of cocoa, combined with slavery abolishment drove cattle ranching to become the main activity among large landholders. However, the relatively low economic importance of the floodplain during this period allowed for more tolerance on access to private lands by local peasants, leading to a range of informal land rights arrangements between the two local actors.

In the 1930s, the *jute boom* in the floodplain brought large landholders and mixed peasants to collaborate through sharecropping and patronage systems (Gentil 1988). The former provided land, input, and market access and the latter provided labor force. Around the same period, the floodplains became formally state property as part of the National Constitution implemented in 1934 (Benatti et al. 2005). However, limited presence of state agencies combined with politically empowered local elite on one side, and poor local organization and consolidated patronage system on the other, supported the continuity of a *de facto* private property rights in the floodplain. Economic dependency of peasants from large landholders kept conflicts between the two local actors at low, while informal transactions of land properties was maintained and even advertised in local newspapers (Castro 1999).

Following the decline of jute production in the early 70s (Winklerprins 2006), large landholders turned back to cattle ranching while mixed peasants turned to commercial fishing. Primarily a subsistence activity, fisheries filled the economic void, as regional fish market increased with the urbanization process driven by development programs on the upland. At the same time, better equipped commercial fishers from other regions, who enjoyed access to governmental subsidies and more efficient fishing technologies, drove the encroachment of floodplain lakes (McGrath et al. 1993). Increased conflicts over access and control of floodplain lakes between local and outside fishers coincided with the emergence of peasant social organization. Supported by the Catholic Church, community-based settlements with local governance systems were created throughout the Amazonian region as part of a political education program MEB (Lima 2009; Castro 2009). This new local political organization gave the foundation for the notion of community-based property rights of floodplain lakes locally called *fishing accords* (Castro 1999).

The fishing accords are written documents in which rules regulating fishing activity and monitoring systems are drafted and voted in community meetings (Castro and McGrath 2003). Although organized by local communities, large landholders often supported and were benefitted from this CBMS as the monitoring system incidentally helped to control cattle piracy in their ranches.¹ On the other hand, increased ranching activity by large landholders fueled local conflicts with community residents who suffered from increasing attacks of animals, crop damages and environmental impacts in the lake systems.

In the early 1990s, the fishing accords attracted attention from researchers, governmental and non-governmental organizations in the region as a genuinely bottom-up initiative. Several organizations

¹ Lake monitoring system of fishing accords helped to spot rovers that were after cattle as well.

initiated different projects based on research, institutional capacity building and political empowerment, leading to collaborations and a solid network that supported the formalization of the somewhat flexible local management system, into a standardized structure including rules of floodplain resources and linked to a regional institutional arrangement (McGrath et al. 2008). After a long period of research and activism, the fishing accords were formally incorporated into a new territorial model implemented in 2006, called Agro-Extractive Settlement Project (PAE). The PAE is an agrarian reform settlement category designed for traditional populations based on sustainable production, participatory management, and exclusive collective use rights (Castro 2012a).

The new territorial model is compatible with the local CBMS (fishing accords) which is the key element in the discourse of the floodplain residents throughout the region. However, another local institutional arrangement that has persisted since the post-colonial period still has strong influence in the way resources are allocated and negotiated among community residents and large landholders. Subtle social norms mediated by power relations between them, which may overrule the CBMS, can be observed only when confrontation between these two local actors over appropriation of natural resources takes place.

The following section describes the multiple ruling systems currently in place in the floodplain with focus on the social norms mediating local practices between the two main local actors.

3. Institutional diversity and local politics

Until recently, floodplain communities lacked legal rights to claim their control over floodplain resources. Although local decisions regarding access and control of land and natural resources were taken at community meetings, everyday life practices were often controlled by large landholders. The overlap between common pool resources (grassland and lake system), two contesting local actors (mixed peasants and large landholders) and a range of economic activities are the ingredients for a socio-environmental picture grounded on different layers of tenure systems. In fact, the fishing accords (CMBS), emerged recently, are embedded in another local ruling system controlled by the large landholders shaped up over the last century. The collective action among community residents to address problems with outside fishers have crystallized into an CMBS mainly because it did not threaten the local elite. Under this explicit collective tenure system, however, laid conflictive relations between community residents and large landholders, which remained implicit and were dealt with through implicit social norms between them. As a result, three layers of tenure system can be identified in the Lower Amazon. The *formal legislation and policies* officially dictate what is allowed, prohibited and required regarding natural resource use in the floodplain. The *local management system* informally dictates how aquatic resources and grasslands must be used by local users. The *social norms* allow permeability in the local management system according to power relations mediating social interaction between community residents and large landholders (Castro 1999).

3.1 Formal legislation and policies

Since the Constitution of 1934, the floodplain is a state property with equal access to all citizens. According to the Water Code, the government can assign right-of-use to individuals to occupy the floodplain whenever the use does not threaten the public interest (Vieira 1992). Land access in the floodplain is controlled by the State Heritage Office while management and monitoring of floodplain

resources is regulated by a set of national legislations (e.g., water, fishing, land, and forest) under responsibility of environmental agencies.

In 2006, the Lower Amazon floodplain turned into Agro-Extractive Settlement Projects (PAE) in order to provide formal grounds to the CBMS. The PAE territorial model is based on four main pillars: 1) social justice to community residents; 2) exclusive collective land use rights to the local residents by means of a (renewable) use concession contract of 10 years; 3) participatory collective Management Plan; and 4) provision of small grants, credit line and technical assistance to establish basic infrastructure for production system.

As a territorial-environmental entity, the PAE is defined through ecological, cultural and socioeconomic criteria. In the Amazonian floodplain, the PAE boundaries are defined according to a lake system and the surrounding land. All community residents, based on their ethnic background, are entitled to live in a PAE. Large landholders lose control over their (informal) land properties whose access and use depends on permission from the PAE Council, composed by representative of each community.² Large landholders are not only affected by their landholding disentanglement but also by their ineligibility to any financial support during the implementation of the PAE. This way, the PAEs are expected to foster change in the local power structure.

The level of local organization and collaboration among communities are key elements for the success of the PAE Council. The fishing accords are incorporated into the Management Plan which becomes the main institutional tool to regulate access and use of the floodplain resources. Compliance to the Management Plan is monitored by the PAE Council. As evoked by the settlement category, agro-extractive activities such as artisanal fishing, agroforestry, and small farming systems are the core of the local socio-economy foreseen for the region. In contrast, despite the growing engagement in cattle ranching by community residents, and the potential increased investment due to access to credit lines, this activity is expected to be restricted in the PAEs.

In sum, the formal management system in the floodplain has evolved from a fragmented governance and weak presence of the state to a co-management territorial perspective to the floodplain. The land tenure systems designed for the PAEs implies a major change in the political position of the two main local groups. The informal land tenure system of private small and large landholdings as well as the collective lake management (fishing accord) are replaced by a formal collective exclusive floodplain concession to a local council run by community representatives. A Management Plan formulated in collaboration with local communities and state agencies regulates the access and use of natural resources in the area by the local users. The formal recognition of community residents as the PAE overseers was expected to empower the local communities who now decide whether and how large landholders may use the floodplain system.

3.2 Local management system

The state property rights of the floodplain have not been respected in the past both in terms of resource use and land occupation. For instance, flooded forest clearing intensified to give way to jute cultivation, and transaction of land properties remained as customary practice after 1934,

² Community residents employed by the state (e.g., teachers, health agents, environmental agents) are not eligible to the financial benefits such as small grants, credit lines, and technical assistance.

despite changes in the legislation (Castro 1999). Lack of an effective state property regime has opened space for local actors to shape up informal ruling systems according to the local socio-environmental context.

In contrast to the homogeneous former state property regime, the local management system makes clear distinctions among the four floodplain ecosystems. *Streams* are usually regarded as open access, especially in the case of channels for boat transportation where excludability is troublesome. *Natural levees*, where houses and crops are settled, are privately owned and can be sold, rented, and inherited. Sale transactions are carried out by using informal proof of payment including the name of the owner, property size, and sale price. The property area is measured by the facade along the riverbank while the length inward is permeable and can be source of incidents due to seasonal variation of water level. Land losses from natural events (e.g., flooding or landslides) are considered private misfortunes and the owners cannot claim for compensation.

Lake systems and grasslands are held collectively. The former were appropriated by local residents through the establishment of fishing accords in the 1980s (McGrath and Castro 1993). Based on a concept of collective access and use rights, this CBMS emerged in response to the perception of threat of intensified fisheries in floodplain lakes by outside fishers (McGrath et al. 1993). The local management of lakes rapidly multiplied in the region. Through the fishing accords, local communities have appropriated themselves of lakes, in some cases, with high level of formalization, including elaborated rules of access, use, monitoring and sanctioning (Castro 1999). However, until recently they remained mostly fragmented, poorly documented, limited to single communities and focused primarily on fishing resources (Castro and McGrath 2003). However, lake systems, the flagship of the CBMS, physically overlap with grassland, the most important natural resource for large landholders. Lakes are semi-perennial water bodies with variable boundaries, from open systems covering landholdings during the flooding season to semi-closed or enclosed systems during the dry season. Tension between collective and private access and use of these two overlapping systems is observed through constant negotiation between the two local actors. Through this tension another layer of social norms mediating access and control of these two ecosystems can be revealed, as discussed in the following section.

3.3 Social norms

Social norms mediating relations between local actors have been gradually built throughout the occupation history of the floodplain over the last century. As described earlier, the long co-residence of mixed peasants and large landholders in the floodplain has created a broad range of everyday life interactions swinging between partnership and conflict. Under absence of state agencies to provide social services and monitor formal legislation, the rural elite assumed the position of provider of basic services and employment in exchange for social respect and control over floodplain tenure. Cultural, social and economic bonds among these two actors developed over time and underlined distribution of access to and control of natural resources in the floodplain. Often times, large landholders participated actively in the local life as godfathers of peasants' children, religious celebrations, social gatherings and community meetings (Castro 2010). Economic dependency based on patronage installed during the *jute boom* added to the cultural and social bonds between the two local actors which minimized conflictive episodes.

Interestingly, incidents between the two local actors were more frequent whenever their partnership in the production systems were relaxed. For instance, reports of incidents over land tenure between mixed peasants and large landholders were not uncommon in local newspapers during the economic hiatus left by the Rubber Bust in early 1900s when the floodplain was still held privately (Castro 1999). Ironically, after the state property regime was installed in the floodplain in 1934, local incidents over land tenure declined even though private property regime remained as *de facto* tenure system due to lack of monitoring combined with strong patronage system. Only after the establishment of a political organization of the floodplain community in the 1970s, and the increased support from state and non-state agencies in the 1990s, have the social relations between the two local actors swung again towards more incidents mostly due to increasing engagement of community residents in cattle raising. The analysis of incidents between the two local actors helps to unveil implicit social norms mediating local negotiations (Castro 1999). Below several observed incidents are discussed in order to highlight the local perceptions regarding access and control to each ecosystem, and the political position of the two local actors.

According to local management system, crop fields located on the *natural levees* are privately held. Despite the private informal regime, trespassing of herds of large landholders to gardens of community residents has been a persistent source of conflict. Large landholders, however, habitually refrained from compensation of community residents from crop damages caused by their animals.

In contrast to levees, reactions to cattle-related incidents on *grasslands* have been more severe. Cattle raising has become increasingly valued among community residents as a prosperous economic activity, especially among young men. Initially, local residents engaged in cattle raising through a partnership system with outside ranchers. According to this informal arrangement, local residents rent the grassland and become caretakers of herds brought from elsewhere to graze during the dry season and received half of the born calves in exchange of their services (Merry et al. 2004). The cattle partnership has empowered community residents who have become economically independent from large landholders. As a result, community residents started to reclaim their collective rights to grassland in order to use it for cattle partnership business. The tension between private and collective rights to grassland led to several incidents in the 1990s, before the CBMS had been formally recognized by the government.

One incident reveals the concern from large landholders in the increasing competition over grassland with community residents. In order to control the renting business initiated by local peasants, large landholders proposed a rule to limit the number of cattle each local resident could receive based on the proportion of their *owned grassland* (the grassland located behind their house). By accepting this proposal, community residents acknowledged the private tenure of grasslands. On the other hand, large landholders repeatedly violated the collective decision to prohibit water buffalo in the floodplain as part of the CBMS in several communities.³

Contestation over grasslands is particularly stringent on islands that emerge from gradual sedimentation process (grown land) where property rights are still undefined. These areas are usually located close to settlements across a river channel and used as farming and grazing areas but locally appropriated by large landholders. In three cases observed in the 1990s, external support

³ Water buffaloes were introduced in the Lower Amazon a few decades ago and, they are source of major environmental and economic damage despite their better adaption to the floodplain environment in comparison to cattle.

from a grassroots organization was instrumental in supporting peasant's struggles to maintain their access to the grassland. In the first case, a large landholder claimed his exclusive rights to an island formerly shared with fifteen community residents. Most of the users left the area immediately in respect to the landholder while two residents resisted and, with support from the Rural Workers Union, won their right-of-use in court two years later. In a similar case, a large landholder was granted exclusive rights in 1959 to an island of approximately 2 ha. The island gradually grew over the years and was shared by several community residents. Thirty-five years later, the island holder claimed exclusive use rights to the whole island which had grown to 250 ha. Community residents, supported by the Fisher's Union, filed a suit against the island holder and were granted with rights to use and to manage the island collectively while the island holder was granted with exclusive use rights only to the original 2 ha. Finally, another similar case, an island appropriated by a large landholder and shared by a few community residents for over two decades became source of conflict after the death of the original island holder. The heir claimed exclusive access to the island and, similar to the cases described above, the community residents were granted exclusive collective use right of the island with support from the Fisher's Union.

The three cases above illustrate the constant contestation over grassland between the two local actors. It also reveals that large landholders try to control this ecosystem privately while access by community residents is often tolerated. Perception of private rights, however, is sometimes also shared by community residents who have often accepted landlords' decisions. Only after community residents engaged in cattle ranching and received political support from external actors, have incidents over appropriation of grassland surfaced.

In contrast to grassland, conflicts related to access and control over *lake systems* are less severe as large landholders have relatively less economic interest in this ecosystem. Nevertheless, incidents related to lake system between the two local actors is not unusual. Although lake management is the flagship of community-based management system in the region, claims of private ownership over lakes by landholders in their discourse and practice was observed in a few occasions. In one incident, one landholder allowed his guests to violate a fishing rule by arguing that the lake in question was located *within his landholding*. In another case, a landholder claimed to have exclusive rights to make use of a fishing gear banned by the local management system in *his water*. In both cases, after several incidents, the community finally agreed with the landholders' claims, showing some level of common understanding on the private lake tenure when located within the boundaries of a landholding. However, thornier cases emerge when landholders' claims strongly influence the economic interests of the local communities. One illustrative example is the request from a landholder over her exclusive rights to exploit commercially the pirarucu (*Arapaima gigas*), a high-priced lake species collectively managed in one lake located *within her landholding*. After a bitter negotiation process, the two parties agreed on keeping the community rights to fish the managed species with the condition to sell the catch only to the landholder in exchange of her support to the community-based management in *her lake*. In other word, the possessive pronouns his, her, ours are frequent in defining boundaries for access, control, and management rights.

Discourse of private ownership of aquatic system was also observed in incidents among community residents. In one fishing accord, for example, it has been established that those who did not comply with the local ruling systems were allowed to fish only in *their water*, i.e., in the area adjacent to their landholding. Similarly, in an occasion of a participatory mapping exercise, the community residents draw landholding boundaries across lakes on a satellite image taken during the flood

season. According to their explanation, the drawn lines crossing the lakes represented the boundaries that could be seen on the image only during the dry season. Therefore, even during the flooded season, when everyone can easily reach the lakes, local residents perceive the collective access to the lakes for fishing purpose, but respect the private boundaries of the physical area.

In sum, the notion of private rights to aquatic system in the discourse of both local residents clearly illustrates that while ecological factors influence the pattern of access and management rights to this subsystem held collectively, political factors among local residents and landholders define control over decisions held privately. This nuanced variation between the two local actors regarding the bundle of rights has major implication in the implementation of a new territorial model in the floodplain, as discussed in the following section.

4. New territorial model under old social relations

As discussed in the former section, incidents between community residents and large landholders over control and access to floodplain ecosystems were common prior the creation of the agro-extractive settlements (PAEs), as the area lacked effective state tenure system. With the new territorial model, the *de facto* private tenure system was to be replaced by a formal collective exclusive use concession to community residents regulated by a participatory management plan in which the fishing accords should be incorporated. Therefore, the establishment of the PAE implied a major change in political position of the two local actors. Community residents are legally recognized as the territory overseers who decide how and by whom the natural resources should be accessed and used. Large landholders, on the other hand, were to become mere occupants and could maintain their economic activity only under approval of the PAE Council and under conditions established by the management plan. In other words, as the *de facto* private rights to landholdings is revoked, the large landholders' position changes from protagonist to authorized occupant with limited access to the local resources defined by the community residents.

As expected, the implementation process of the PAEs found major resistance among large landholders. After a few failed attempts to propose an alternative territorial model that would recognize the *de facto* private land tenure in place, large landholders went silent and disregarded the implementation meetings. Although state and non-state actors interpreted the exit of landholders from the process as part of the local empowerment process, they agree that landholders were not ready to hand over their landholdings to the new territorial model, and that new conflicts were expected to emerge in the latter stage of the implementation process.

The president of the Rural Producers Union at Santarem (SIRSAM), which represents the large landholders, describes the PAE implementation as “a disguised authoritarian process of stealing land from producers”. He argues that floodplain landholders are mistakenly regarded as land grabbers who have illegally appropriated from the floodplain grasslands. However, according to him, ranchers have bought their properties through the current *de facto* land market the same way as the local residents did. In addition, he challenges the image of “large ranchers” locally used to refer to large landholders by mentioning an internal report prepared in 2010 by the state agro-pastoral agency that reveals a relatively small average herd size in the floodplain of 80 heads/landholding, and only 5% of the landholdings with above 300 heads. As medium-sized landholders, therefore, they claim to have been excluded from the new territorial model and all their formal complaints have been ignored.

Interestingly, despite the strong criticisms from the landholders, the first years of the implementation process of the PAEs have been marked with little signs of incidents between the two local actors. So far only a few official complaints regarding land conflict have been turned in by PAE Councils. According to practitioners and state agents, four main factors may have contributed to the relatively undisturbed process so far. First, in the first years, local residents were focused on dealing with the financial benefits from state agencies (e.g., credits, grants, and infrastructure) which led to limited time to deal with resistance from landholders. Secondly, most of the PAE Councils are not well organized yet to call upon the Management Plan to confront landholders. Third, local residents may hold on to the perception that private landholders have some rights to the land they use. Finally, on the positive side, a few cases of landholders who held positive relations with community residents reached agreements on land use.

The last two explanations are particularly relevant to the local social relations and the unchanged perception toward land tenure among local users, even in well-organized communities, as illustrated by one conflict. The PAE Aritapera, which has one of the most well organized Councils, decided to file a formal complaint based on the new territorial model in order to solve the last-longing land conflict between community residents and large landholders. The state agent in charge of the implementation of this PAE explains with frustrations the way the complaint was formulated:

“The most capable leader of the community sends to us [state agency] a formal proposal requesting that the landowner donate half of his land to the Council as a way to solve the local conflict. The correct proposal should be framed the other way around, that the Council would grant the occupant (not landlord!) to use half of the land he had formerly appropriated. If the perception of the local residents about their property rights will not change, it will be difficult to see a real change on the ground” (my translation and my emphasis).

A similar pattern has been observed regarding the *de facto* land selling. The PAE awards exclusive use and management rights to local communities but does not provide the eligible users with alienation rights. However, in several interviews in communities, local leaders have mentioned that land trading has persisted among community residents and large landholders. These illustrative examples show the contradiction between the new formal tenure system installed with the PAE and the persistent local perception that validates the *de facto* tenure system even in highly organized communities. Less organized communities are likely to face more challenges to embrace the new land tenure system both among themselves (e.g., land selling) as well as with landholders as local power asymmetries combined with local perceptions of the *de facto* private tenure may help to maintain the status quo.

According to the state agent, landholders seems to have changed their strategy from confrontation to adaptation to the new territorial model. They have gradually become less vocal against the new formal tenure system and more prone to informal negotiation with the PAE Councils. A positive outcome can emerge from this process where communities are well organized. In the case of the PAE Aritapera described above, the landholder initially reacted with threats to the community residents and sought support from influential politicians with no success. Later on, he turned to negotiation and agreed to use only half of the occupied area and allocate the other half to several community families to use for farming. In less organized communities, however, there is a major risk that the local politics will maintain unchanged.

In short, despite the potential of the new formal tenure system to empower floodplain communities, the *de facto* private land tenure tend to persist in the region. Instead of confrontation, former large landholders have adjusted the *de facto* private tenure system under the new territorial arrangement through ongoing practice of local politics. Community residents seem to go along with this strategy for two reasons. In some cases, because they have not been well-organized enough to break the social bonds with landholders that maintain the power asymmetries. In other cases, because the local communities often share the landholders' perception, which validates the *de facto* tenure system.

5. Discussion: moving beyond the CBMS and the commoners

The theory of the *commons* combines local perspective of cultural ecology with a broader perspective of political ecology. The former emphasizes local ecological and social context influencing emergence of local management systems (e.g., Netting 1976, McCay and Acheson 1987, Berkes 1989, Ostrom 1990), whereas the later calls for broader contextualization of social, economic, and political factors influencing contestations over access and control of natural resources (e.g., Peters 1994, Edwards and Steins 1999, Dietz and Henry 2008). Both perspectives have been instrumental to offer a solid analytical framework for the understanding of how collective action emerges or erodes. However, it offers limited insights on addressing multiple resource appropriation regimes under heterogeneous social and changing environmental system. CBMSs are usually embedded in broader and smaller socioenvironmental scales in which power plays a major role (Ribot and Peluso 2003). A close look at local social interactions with temporal and spatial depth is needed in order to better understand the role of power relations in shaping tenure arrangements among local users (Agrawal 2003). Political life in rural communities goes beyond formal and concerted collective efforts and combines subtle everyday life interactions ranging from support to resistance (Kerkvliet 2009). The Amazonian floodplain case offers a unique opportunity to explore these shortcomings by addressing socioenvironmental and institutional diversity through a historical perspective of everyday life politics in shaping multiple informal tenure system.

The management of the floodplain in the Lower Amazon encompassed three layers of ruling systems: an official legislation designed and regulated by national agencies influenced by large-scale political demands; the CBMS focused on local socioenvironmental context primarily related to fisheries and secondarily to other floodplain resources; and a more implicit ruling system mediated through economic and social relations between community residents and large landholders. These three overlapping layers compose a complex spatial and temporal configuration of tenure and management system which varied according to historical, socioeconomic, and political contexts. Grounded in social capital built over time, the CBMS emerged as a local solution to fishing encroachment and has been relatively successful in limiting resource access and use from outsiders. However, CBMS is embedded in nuanced social norms ruled by landholders to keep control over local resources. While conflicts with outsider fishers take place in form of verbal and physical confrontations, contestations over control and access to natural resources between local actors take place in form of subtle negotiations which cannot be easily depicted in their discourse.

The CMBS has been relatively successful when it is congruent with social norms (e.g., lake management system to keep outsiders away) due to similar motivations and perceptions between both local actors. However, when it comes to regulating access to grassland and cattle management,

CBMS is usually overruled by social norms that mediate local negotiation and usually benefit large landholders. The tension between CBMS and the social norms became more evident as community residents became politically and economically empowered to confront and, sometimes, overcome local power asymmetries. On the other hand, the everyday life politics exercised between the two local actors makes engagement in an open conflict costly as it would affect their long-term social bonds (Castro 2002).

The two-layered informal property system of the floodplain reveals a pattern of resource appropriation that play out at different levels - the CBMS is an explicit ruling system used by residents to claim collective control to lakes and, more recently, to the lowlands while an embedded implicit ruling system controlled by large landholders is triggered whenever their private rights are under threat. In other words, while access to “collective” resources (e.g., lakes and grasslands) is maintained among both local actors, large landholders strive to maintain their control over decisions regarding their use. This dual local tenure model challenges the *cultural ecology* perspective to the *commons*, which focuses on how ecological and economic attributes of the ecosystem and resource units influence differently the cost of defense and monitoring (Netting 1976). While the CBMS conforms this adaptive model, the social norm system calls for a contextualization of social and political relations.

The CBMS model is clearly influenced by ecological patchiness combined and annual cycle of water fluctuation leading to spatially and temporally variable property rights. In particular, two overlapping subsystems -- lake and lowlands – where boundaries permeability and highly dispersed (grass) or fugitive (fish) resource attributes make individual rights troublesome (McGrath et al. 2008). Similar pattern is observed in other parts of the world. Thomas (1996) describes spatial variability of tenure system of floodplains in Nigeria according to level of concentration, predictability and mobility of resources. Vondal (1987) explains how seasonality influences change of appropriation regime in the same physical area in the swampland in Borneo where lakes shared collectively during the flood season turned into privately owned cropland during the dry season.

Although the CBMS layer can be explained as a result of a long-term shaping adaptation process influenced by the distribution and abundance of resources to a patchy ecosystem, social norms mediating reinterpretation of property rights at the local level can only be explained by power relations and shared perception among local actors.

Large landholders have long been successful in accommodating their *de facto* ruling system into a formal ruling system. The introduction of state property regime in 1934 had no effect in the traditional land tenure system in the region. Likewise, more recently, more than 50 formal agreements between both local actors on cattle management have been drafted by the Public Ministry in different communities in order to hold large landholders accountable for material losses caused by crop damage by cattle (McGrath et al 2008). Those agreements, however, were effective mostly where friendly social relation between large landholders and community residents was already in place. The new territorial model proposed for the floodplain, which emphasizes consonance between the legal framework with the CBMS, represented a new opportunity for community residents to change the local power structure. This strategy conforms the theory of the commons which advocates for effective inclusion of local users in the design, implementation and monitoring of management systems (Jentoft et al. 1998; Ostrom 1990; Berkes and Folke 2000). However, despite this institutional innovation, large landholders have so far maintained their

privileged access to their informal holdings by exercising everyday life politics. Those holding friendly relations with community residents succeeded to maintain their activities, through cooperative negotiation while those holding conflictive relations with community residents disregard the PAEs rules and make use of their locally legitimized political position to manipulate local perceptions.

The “invisibility” of the social norms as an implicit ruling system to policy makers, practitioners and researchers reflects the incomplete social contextualization of the local management system which overlooks asymmetric interactions between local commoners and local non-commoners. Co-management initiatives supported by NGO’s, GO’s and grassroots organizations emphasize explicit local ruling systems and little attention is devoted to social norms locally embedded, which are often hidden in the local discourse. Community residents have strengthened their claims to governing local natural resources due to social changes at the local level including community organization, conservationist discourse, and external support (Castro 2012b). However, CBMS research and practice must go beyond analysis of how commoners collaborate, and how collective institutional arrangements are structured, and integrate temporal, spatial and social depth in order to better understand how local social interactions influence cooperative and conflictive relations over time and how the CBMS is embedded in a multiple ecological, economic and institutional repertoire (Cleavers 2002). More importantly, accountability of everyday life practices is fundamental to reveal how informal rules crafted at the local level are continuously contested and negotiated among local actors.

6. Conclusions: politicizing the commons

CBMS research usually focuses on features of the commoners, attributes of single managed ecosystems and resource units, and single local tenure system. However, CBMS often represents part of a more complex tenure system defined by practices shaped according to the political position of different local actors. Revealing diversity of ruling systems and everyday life practices that mediate interactions between different local actors is fundamental to understand how the commons are used and managed at the local level. The limited focus on CBMS and commoners may hide internal aspects of social relationships that are essential to understanding the politics of appropriation of the *commons* at the local level. Therefore, a political perspective to the CBMS with focus on how local users negotiate access and control over natural resources under socioenvironmental, socioeconomic, and institutional diversity may help to better unveil potentialities and shortcomings for the legal recognition of sustainable and robust CBMSs. Assumptions that integration of local management systems into a formal legal framework suffices to achieve efficient co-management system is rather simplistic. Despite major structural changes in the formal tenure framework, power relations between different local users may remain unchanged if local perceptions and everyday life practices of power relations are maintained. The success of a co-management system depends on the degree of compatibility with other layers of property rights and on whether it addresses local power asymmetries. Therefore, a local contextualization of the social structure is crucial to reveal potential barriers to the development of a participatory and democratic system.

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