

# Shaping Rules and Practice for More Justice. Local Conventions and Local Resistance in Eastern Senegal

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**Abstract** Participatory programs and the transfer of the means of regulation to local populations can move local people to adopt government or development project agendas. They do not always succeed. When externally driven agendas fail to match local norms and practices, they are resisted and re-worked to accommodate local views, needs, and aspirations. In this interaction both the external agenda and local norms are contested and reconstituted in ways that follow the contours of the power asymmetries among local actors and external resource users, government agents and project managers. In the Tambacounda Region of Senegal, forest-dwelling villagers constantly negotiate forest use with more powerful urban-based merchants and transhumant herders. Government and international development programs have introduced ‘local conventions,’ written agreements among resource users, to reduce conflict over resource-use decisions. However, despite elaboration through participatory processes these conventions impose rules of management and use that contradict local environmental subjectivities; consequently,

local people resist and rework introduced rules, and thus reconstitute them as, at least partly, their own.

**Keywords** Forestry · Decentralization · Local resistance · Sustainable resource use · Local regulation · Senegal

## Introduction

Participatory processes of local resource governance have been criticized as means to impose external agendas or as insufficiently representative of local populations (see Ribot 1995; Cook and Kothari 2001; Brockington *et al.* 2008; Haller and Galvin 2011). Agrawal (1995) adds that via participation in the means of regulation, local people become state subjects who adopt the state’s environmental projects of regulation and protection. In both cases, outside agendas of government or development projects appear to be being executed by local people. Yet Haller *et al.* (2015) argue that in both imposed and voluntarily adopted cases, externally driven agendas that fail to match local norms and practices are locally resisted; they are then re-worked to accommodate local views, needs, and aspirations. In this partially leveling, and certainly asymmetric, interaction both the external agenda and local norms are reconstituted in a “bottom-up” process Haller *et al.* (2015) term “constitutionality.”

In the Tambacounda Region of Senegal, forest village locals, ‘insiders,’ constantly negotiate power asymmetries between themselves and urban-based merchants and transhumant herders, ‘outsiders,’ in natural resource use processes. To reduce conflict and improve natural resource use, Wula Nafaa, a USAID-funded Agriculture and Natural Resources Management Program, helped to write ostensibly local rules in “local conventions” – a set of regulations agreed between local communities and their

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local governments, and witnessed by local state appointees, to govern access to resources.<sup>1</sup> Such local conventions are used widely under many names – in West Africa they are called “rural conventions,” “code of conduct,” “protocol of agreements,” or “internal regulations” (Djiré and Dicko 2007), and even land-use plans known in French as *Plans d’occupation et d’affectation des sols* (Touré 2011). They entail any form of agreement on common-pool natural resources management and uses negotiated and validated at the local level among the various users of a given resource.

Negotiations among resource users to create these local conventions and obtain recognition by the diverse local authorities (customary, elected local political authorities and local state appointees) are usually organized and financially supported by state and donor environmental projects. This was the case for the local convention of the Rural Community<sup>2</sup> of Koussanar, which was initiated and funded by Wula Nafaa. In Senegal, local conventions are justified by a discourse of sustainability (Faye 2014) following an exaggerated narrative of natural resource depletion in the region (Fairhead and Leach 1996; Ribot 2001). In Koussanar, participatory deliberative processes yielded formal documents composed of an array of rules – “the set of instructions for creating an action situation in a particular environment” (Ostrom 2005:17). These compulsory rules are expected to be ‘constitutional’ regulations of actions and interactions of both the insiders and outsiders.

Although some scholars think of local conventions as being socially integrative, politically progressive, and ecologically effective (Seegers 2005; Djiré and Dicko 2007; Granier 2007; see also Benjamin 2008), they have not guaranteed equity and social inclusion in natural resource decisions (Touré 2011; Faye 2014, 2016). Further, these agreements enhance government and NGO powers rather than being rooted in local interests and norms. Despite the participatory approach that organizes their formal elaboration, there remains a gap between the formal rules of local conventions and local norms. In addition, they are embedded in unequal relations between government or donors and insiders, among the insiders themselves in stratified local communities, and between insiders and outsiders, and thus they face local resistance by some factions (Faye 2016). Therefore they often fall short of their goals of conflict reduction and improved ‘sustainable governance’ of resources and distributional justice (Haller and Galvin 2011; Chabwela and Haller 2010).

<sup>1</sup> Local conventions are institutions, written “rules of the game” that can help improve natural resource management. The ability to craft institutions to safeguard commons is not exclusive to the state as Hardin believed (1968); local people can and often do so themselves (McCabe and Terrence 1989; Ostrom 1990; Berkes 2009; Haller 2010). They do not require the state or external interventions to craft the institutions to maintain their environment.

<sup>2</sup> A Rural Community is the lowest level of local government. It regroups many villages and includes approximately 20,000 inhabitants. After June 2014 local elections, Rural Communities became (rural) Communes. Each Rural Community has an elected Rural Council (Municipal Council) and President (now Mayor).

We examine how the rules within these local conventions influence insider uses of resources and the interactions between insiders and outsiders; whether project intervention designed to foster participation of all of the insider and outsider ‘stakeholders’ produces a local sense that the rules inscribed in such agreements are legitimate and represent local needs and aspirations; and whether those who define themselves as local people even agree that outsiders have legitimate ‘stakes.’ We scrutinize the participatory process that led to the creation of the local convention of Koussanar in light of the fact that by this process old and new forms of identities of localness and being an outsider are fostered and negotiated, and assess the effects of the agreed rules and changing natural resource markets – including increase of resource prices – on the ways that local people “come to care for, act and think of their actions in relation to something they define as the environment” (Agrawal 2005: 164). We focus on regulations of wild fruits, pastures, and watering sources for cattle, since these resources are addressed in the Koussanar local convention.

After presenting our methods, the site, and delineating the case study, we trace institutional changes in the Senegal’s land and forest tenure. We then provide an account of Wula Nafaa-organized local participation in the process of crafting the local convention and the most important rules it contains. Next, we focus on reaction to the rules and the reasons, attitudes, and discourses behind those reactions. We conclude with a presentation of our main results and a discussion of their theoretical and practical implications for natural (forest) resources governance.

## Methods

The empirical work for this paper spanned a cumulative 15 months from February 2012 to January 2014 using qualitative and quantitative methods. The qualitative data are dominant and based on participant observation (with diary keeping) in three villages (Dawady, Kolomba, and Boulel). The lead author lived in the villages, participating in forest harvesting activities and in day-to-day village life. Participant observation took place throughout fieldwork, but mainly at the beginning to evaluate directly whether the insiders observe the rules of the local conventions, especially with regards to harvesting techniques and taxation, and to identify people involved in wild fruit collection activities and those individuals we should interview individually and collectively.

In the next step, semi-structured interviews as well as informal discussions were held with forest officers, forest users, and herders, the USAID-project staff and facilitators, and elected local officials. During the semi-structured interviews, individuals in each category were asked about their knowledge of the rules, their own input into rulemaking and/or that of their representative, how they were giving or were given feedback via participation in rulemaking, their own evaluation of the enforcement of the rules, and the pathways for generating

applicable and fair rules. Over 50 interviews were specifically on these topics. These were among hundreds of interviews we conducted on other forestry topics that provide background to this study but are not directly addressed in this article.

Four focus group discussions were held in order to collect views and opinions of specific categories of informants within villages: forest guards, presidents of committees, and two groups of men and women involved in gum Arabic harvesting and sale, interviewed separately. Forest guards and presidents of forestry committees were interviewed in groups of three to four persons – mainly on the successes and challenges in applying the rules of the local convention and how they see the future of this regulatory instrument. Most of the group interviews were recorded and transcribed with the help of an interpreter to allow detailed understanding. The lead author has a basic comprehension of the local languages spoken the area.

A questionnaire was also used in 59 households in the three villages (Dawady 21, Kolomba 23, and Boulel 15) to measure local people's engagement in forestry activities and to elicit the gender and historical dimensions of engagement. In each household we surveyed the most active person engaged in wild fruit collection. The gender distribution of the sample was 41 women and 18 men. Data collected from the questionnaire survey were then analyzed using SPSS and Excel.

To analyze the factors of institutional change, the New Institutionalism approach in economic anthropology (Ensminger 1992; Haller 2013) was used to explain how an external intervention such as Wula Nafaa has increased prices for wild fruits and how its interactions with the local changes in relation to the exchange value of the resources have influenced bargaining power, choice of ideologies, and selection of institutions that shaped the behaviors and perceptions of local people towards the environment and outsiders.

## Research Site

Senegal is the westernmost African country. It is part of the semi-arid sub-Saharan zone, subject to a dry climate and environment with recurrent droughts, flooding, and erratic rainfall (Moore *et al.* 2000). There are three main phytogeographic domains depending on rainfall and land-use types (CSE 2005:16–18): a Sahelian savannah domain, a Sudanian dry wooded savannah to open canopy forests zone, and a Guinean domain characterized with semi-dry forests. Our research is in the Sudanian zone.

The forests cover 8,673,153 ha of the estimated total area of the country of 19,242,468 ha, excluding watersheds (PROGEDE 2004). According to FAO records, the forest cover has been declining annually by up to 80,000 ha in the 1990s. Based on this, the Forest Department has been promoting the use of forest management plans (Faye 2015a, b). Local perceptions account for

reported forest cover decline as villagers, women in particular who collect firewood, said that the distance between forest and village has increased. For villagers, the dominant factors of degradation are fire, agricultural clearance, and woodcutting by migrant Guinean charcoal makers who work for urban Senegalese merchants. However, the current trend appears to be landscape re-greening: FAO recorded a slowdown of the annual decline to 45,000 ha in 2005; and to 20,000 ha in 2010 (FAO 2010). Villagers also confirmed the re-greening trend, as men cited the return of certain wild animals and tree species to the forest, and the rapid regeneration after the annual clearance of agricultural plots.

The democratic decentralization reform in 1996 (Law No.96–07 of 22 March 1996) recognized three levels of political local entities: Regions (the scale of provinces or states), Communes (towns), and Rural Communities (groups of villages that share similar socio-historical characteristics).<sup>3</sup> These political bodies and their jurisdictions are under the management of local governments elected by residents. In Senegal, there were administrative and territorial Regions, each of these further divided into departments composed of arrondissements. Each arrondissement contains three to four Rural Communities and sometimes a commune. Since a 2013 political-administrative reorganization (Law No.2013–10 of 28 December 2013), the Region is no longer a democratic entity; it is now just an administrative territorial body headed by a Governor appointed by the President of the Republic. The Departments, which were administrative entities only led by appointed Sub-Prefects, now have both Sub-Prefects and elected governments. Therefore, the Departments now serve as both administrative and territorial entities in which the Sub-Prefect's role is to ensure that the elected governments correctly follow legal procedures. Under the reorganization, the Rural Communities were also given the same legal status as Communes in order to provide them with access to a variety of additional local taxes and royalties formerly available only to Communes.

The data for this article were collected in Eastern Senegal's Tambacounda Region in the Commune of Koussanar where Wula Nafaa intervened during its second phase to initiate a local convention. The Commune of Koussanar covers 1,862<sup>2</sup> km and has 19,554 inhabitants: Fula (56%), a group of Manding ethnicity called Soose Kalonke (37%), and other minorities such as Bambara (4%) and agriculturalist or pastoralist Wolof and Seereer (3%). The Region is traditionally known as Kalonka Dugu (homeland for Kalonke people).

<sup>3</sup> With the promulgation of Law 2013–10 in December 2013, Regions are no longer political decentralization entities and Rural Communities have become (rural) Communes. There are now two levels of political decentralization: Communes (urban and rural) and the departments.

## Case Study

In Senegal, forest governance principles divide forest into areas that have a high potential for charcoal production versus areas without charcoal potential. The first are of central interest for the state and are therefore managed through technical forest management plans (Faye 2015a, b) designed to impose authority over forests more than to ensure sustainability (Ribot 1999). The second are of little importance for the state and are usually subject to local conventions drawn up with the expectation that they will resolve or prevent potential conflicts among local users. Here we focus on these local conventions.

In West Africa, local conventions stand as forms of contracts between the involved parties, and, thus, have become contractual instruments that legally bind various local users (Granier 2007). In Senegal, some legal experts tried to root local conventions in the Decentralization Code of 1996 through the expression “modern and legal tools” (see Sow 2005; Granier 2007). However, the term “local convention” does not appear anywhere in this code and that is why the forestry code, which has been under revision since 2009 (integrating new elements arrived at through trial and error), includes the recognition of local conventions in its proposed new format.

In Senegal, the London-based NGO, International Institute for Environment and Development (IIED)’s Africa program, which has spawned the Senegalese NGO known as Innovations, Environnement, Développement (IED), was the leading NGO in the development of local conventions. Following a regional conference IED organized in 2003 in Mali on the importance of local conventions in natural resource management in West Africa, it launched a series of publications known as ‘*The Local Conventions Series*,’ produced from 2003 to 2009.

Subsequently, many development or environmental interventions took up local conventions around the world. Wula Nafaa, a USAID-funded natural resource management and agriculture-focused program, had two phases: Wula Nafaa-I ran from 2003 to 2008 and Wula Nafaa-II from 2009 to 2013. The objectives were: 1) the development of natural resource enterprises to enable revenue generation for rural people; and 2) the empowerment of local people, to whose local governments the management power over forests had been transferred, through participatory management tools such as forest management plans, land-use plans, and local conventions.

The expansion of Wula Nafaa activities to non-charcoal forest resources followed USAID’s shift to a new approach, known as Nature-Wealth-Power (USAID-Wula Nafa 2009), which views forest management as an integrated program in which the need for conservation should be accompanied by development of forest-based rural entrepreneurship and enhancement of local peoples’ governance capacities, especially the capacities of the local governments, to which the power of

management had been transferred via decentralization and project protocol.

In this new approach, Forest Management Plans and Land Management Use Plans were integral elements of Wula Nafaa-led local conventions. The Land Management Use Plan enables the identification of diverse potential spaces that could be managed differently depending on the types of uses to which they may be subject. If, within the identified forest area, a portion exists that is favorable to charcoal production, a Forest Management Plan is required if the area exceeds 25 ha. If in certain areas such as Koussanar, resources other than charcoal, including gum Arabic, baobab (*Adansonia digitata*) fruit, and jujube (*Ziziphus Mauritana*) fruit are economically important, a local convention should regulate access to those resources and be specifically designed to manage potential conflicts among the different users and uses (USAID-Wula Nafaa 2008).

## Historical Land and Forest Rights Changes in Senegal

In the precolonial period, forests were part of the patrimony of geographically delineated people and locations. The case of ethnic groups that reside in Tambacounda Region illustrates this. The dominant ethnic group is Fulani; they used to utilize forests for grazing under their own rules and regulations of access. Among the most-significant factors permitting access to grazing lands, including nearby forests, were village residence and belonging to the community and social networks. Customary forest institutions were monitored and sanctioned under the authority of the village chief, *jomoo wuro* (Faye 2006).

The second largest ethnic group is composed of Mandinka farmers, who had a sacred relationship with forests at the center of their socio-political system. Each of their kingdoms and villages identified a tree or wild animal within the nearby forest as a supernatural spirit (*jalan*) that protected the community (Niane 1989). Forests were therefore under strict protection and village organizations for forest policing known locally as *tesito*,<sup>4</sup> *wulanafaa* (after which the USAID project was named), and *wulodemaalaa*,<sup>5</sup> from the precolonial period to post-independence (Faye 2006). Village-level forest activities were under the authority of a *dugu tigg*, the equivalent of the *jomoo wuro* of the Fulani. However these leaders were not owners but caretakers of the commons even though their titles mean “the village owner” in both Mandinka and Fulani.

<sup>4</sup> *Tessito* refers to engagement in voluntary work for collective interests.

<sup>5</sup> *Wulanafaa* and *wulodemaalaa* mean, respectively, ‘rich or valuable forests’ and ‘watching out or protecting the forests.’

During French colonization, which ended in 1960, all forests were legally transformed from common to state property, including an option for private property. The development of railways made the forests sources of fuel for the trains (Ribot 2001). The area of Koussanar, located along the Dakar-Niamey via Kayes railway was impacted by this use. The majority of former common property forests were gazetted (*'classified'* or reserved) and placed under exclusive control of the colonial state. Also, some of the forests were taken entirely out of local use and were gazetted as *'hunting reserves'* that later became the national park of Niokolo Koba. Most non-gazetted forests were managed with the aim of providing French industries with raw materials, especially timber. Colonial forest surveillance policies have been described as dictatorial (Gellar 1997) and discriminatory against rural people in favor of the urban population of Senegal's four French Communes (urban areas). Among these French citizens (all those living in Communes were given French Citizenship), people born in France had more access rights than the *'indigenous French'* – people with French citizenship because they were born in the Communes (Ribot 2001).

After independence, Senegal's new government reproduced colonial land policy with Law No. 64–46 in 1964, which retained the vast majority of rural lands under government control by denying private rights to agricultural lands to anyone who a) did not have a private title on or before the date of promulgation, or b) could not demonstrate that they had made significant valuable long-term investments in the land (referred in French to as *mise en valeur*) prior to the promulgation (i.e., infrastructure or planted trees). With this law, more than 95% of the national territory fell into the so-called *'national domain'* (Caverivière and Debène 1988). Hence, villagers were given usufruct rights on the *'national domain,'* without recognition of their customary tenure rights, just as they had lost such rights in the colonial period, when their lands, including forests, had been considered *'unoccupied'* (*terres vacantes et sans maîtres*) (Caverivière and Debène 1988). This echoes Peters' (2013) point that colonial-ly transformed customary law across Africa provided no real rights to land. The common lands, including forests, therefore fell under state control, as they did in many former colonial countries (see Haller 2010). The possibility of acquiring private forests was introduced in 1993 and was (and remains) highly restricted and monitored – the total area of private forests was only 5099 ha in 2005.

In 1996, the political decentralization reform, referred to as the improvement of decentralization or regionalization, was launched, creating new *'rural communities'* with democratically elected authorities like those of the Communes. In 1998, implementation of the decentralization led to the promulgation of the so-called *"Decentralizing Forestry Code."* This code's main innovation was the creation of *'community forests'* and the transfer of their management to Rural

Communities (we focus on rural forests hereafter). Theoretically, a community forest is part of the National Domain, since neither the Decentralization Code nor any decrees preceding it had abrogated the 1964 National Domain Law. However, community forests must be fully managed according to local conditions, needs, and priorities as long as the ensuing decisions are consistent with forestry law, enacted in the 1998 Forestry Code, which legally devolved the power to manage the community forests from the state to local governments, with the elaboration of a Forest Management Plan as prerequisite. However, in practice, Forest Management Plans were developed only for forests with trees that could be used for commercial charcoal production (because charcoal is lucrative and taxable); other forest spaces are instead regulated by local conventions, which usually lack technical and financial support from state services and projects. Only civil society organizations and bilateral programs, such as USAID's Wula Nafaa in the case of Koussanar, support their establishment.

### Local Participation in Koussanar's Local Convention Processes

Wula Nafaa, as set up by USAID, is concerned with implementing democratic decentralization in the forest sector and that is why it chose the elected local government of the rural municipality to lead and oversee the process of crafting the local convention. Members of the local government were asked to identify delegates to represent what was called socio-professional categories determined by the project based on a preliminary socioeconomic study that was coordinated by a private local convention expert from the city of Tambacounda hired by Wula Nafaa prior to its intervention in the area (Tambacounda, 6 June 2012). Thus, there were two levels of representation: the local government council that politically represents villagers and the socio-professional delegates who represent the designated social or professional categories of users (women, younger people, pastoralists, agriculturalists, and wild-fruit collectors).

After the determination of delegates, Wula Nafaa's local convention experts divided the territory of the Commune into different village zones delimited according to socio-cultural criteria, resource-based relationship, kinship, and readiness to undertake common activities. Each village had a development committee and delegated representatives to the zonal committee. Delegates of socio-professional categories were also chosen in collaboration with Village Chiefs. Hence, there were three scales for local input: the village, the zone, and the political rural jurisdiction.

The zones serve as a basis for the rule-enforcement system (Koussanar's local convention, pp. 3–4). In each zone, the local government appoints a local spokesperson known as

*relais communautaire* and two natural resources watchmen whose role is respectively to inform the population and to enforce observance of the local convention rules. Both spokespersons and watchmen are responsible for strict enforcement of the rules. If they are found guilty of wrongdoing, such as engaging in bribery or any form of compromise with (or protection of) rule-beakers, they can be dismissed by the municipality and fined US\$10. The spokespersons and watchmen are paid 40% of the taxes and returns collected from wild forest harvesting and business. The remaining 60% goes to the community: half to the municipality and half for operation of the village development committees.

Local forest technicians have the dual role of enforcing the rules of the Forest Management Plan and the local convention and sensitizing user groups about the current regulations. Nevertheless, both the Forest Management Plan-driven local forest technicians and the convention-based local spokespersons and watchman are intended to be intermediaries between village people, the local government, and Wula Nafaa (and other incoming forestry projects). The local convention focuses on the way wild fruits shall be collected, regulation of herders' access to pasture, and the sharing of water and forests between insiders (local villagers) and outsiders (non-local wild-fruit collectors and migrant herders) (Table 1).

The local convention in Koussanar, however, was not designed or executed as prescribed (see USAID-Wula Nafaa 2008: 4 and 8–11).<sup>6</sup> Monitoring and sanctioning were problems with the convention agreed to in 2006. Problems continued even after revisions in 2009 to overcome the challenges of enforcing many of the rules, and many rules are still not being enforced, or are being *selectively* enforced, i.e., applied only to particular segments of the population in particular places. This indicates a mismatch between the formalized rules and the day-to-day practices and the changing needs and wants of villagers, which has translated into a weak sense of ownership of these institutions (Table 1).

### Local Reactions to the Exercise of the Means of Regulation

In Koussanar effective enforcement of local convention regulations depends on the degree to which the rules espouse local norms and practices but also on local perceptions of resource ownership, fair access to and distribution of resources, and resource availability, summarized in the following four scenarios.

<sup>6</sup> This handbook represents the insights Wula Nafaa has learned from its activities, not what they have actually done.

### Rules that Match Local Norms and Practices

Rule No.6, on preventive firebreaks, matched local norms and practices. In practice, preventive firebreaks consist of cleaning and burning a perimeter of about 10 m around the village area reserved for agricultural activity to prevent wildfires from burning houses. This practice, encouraged by foresters, is similar to that traditionally performed by the ethnic groups around Koussanar. The Fulani call this burning *cummuda bunde* or *looli* while the Kalonka use the term *burburlo*.

Rule No.9 also resonated well with local norms and practice. It instructs incoming herders to leave the area of Koussanar no later than June or July. Traditionally, transhumant herders have always returned home around this period since this is actually the time when the rainy season starts and when the herders can expect fresh grass in their home regions. In addition, if they do not return at this time, before crops begin to sprout, they may not be able to find a route without damaging agricultural fields.

These two rules are not new regulations but old rules that were codified in the local convention. The forest services nevertheless believe that Rule No. 6 on preventive firebreaks derived from their own technical knowledge.

### Rules that are Perceived to Reduce Local Access to Resources and Benefits Thereof

Insiders felt that access to resources and benefits were reduced by the local convention rules requiring the payment of fees for the harvesting of marketed fruits. These rules were perceived as unfair. Most insiders think that fees for harvesting should be applied only to outsiders who have no customary rights to trees in their area, but just come for cash income and move on when the resource is depleted. Women, who have controlled the harvesting of gum Arabic in the area since well before the local convention, have been particularly critical of these rules, contending that the fees deprive them of profit that they get from selling their harvests locally at already low forest-edge prices.

Indeed, our survey showed that 38 persons (64%) were already engaged in wild fruit activities between 1993 and 2008, that is, before the USAID-Wula Nafaa project arrived and the local convention was elaborated. During the same survey, most of senior representatives acknowledged that mostly women are engaged in this activity, either for food in earlier times or, more recently, for revenue generation. Most of elders also said it is mainly a women's activity, since men gain sufficient income from peanut and cotton cultivation, which have now declined because of soil impoverishment, changes in rainfall, and problems in the agricultural market, such as the elimination of state seed and equipment subsidies to peasants.

Thus, the project has not initiated the engagement of local people, including the women in the collection of wild fruit business; it has just increased the prices and widened the

**Table 1** The rules of the local convention and degree of enforcement

No.	Rules	Enforcement
1	Forest village people have use rights to the forests within the national domain, especially with regard to: wood and thatch; wild fruits, medicinal and comestible plants, laalos, roots and honey; animal lanes, pastures and grazing-potential trees and herbs; wood for habitation construction.	Enforced
2	The local government fixes the starting date for wild fruit collection in the forests	Unstable
3	Anyone who robs another's laalo harvest is fined up to 20 USD and the products are returned to the owner	Not enforced
4	Anyone harvesting wild fruits should observe the following steps: 1. Obtain a harvester card from the local government after paying a fee. The fee is 1 USD for autochthons for baobab and jujube fruits, versus 4 USD for outsiders; for roots and barks, the fee is 10 versus 30 USD for autochthons and outsiders respectively; for the laalo, the fee is 12 versus 20 USD; companies and merchants should pay a tax for each kilogram bought: 0.02 USD/kg of laalo and roots and barks, 0.01 USD/kg of jujube and baobab fruits, and 2. Obtain a harvesting permit from a Forest Service office 3. Receive acknowledgement from the local spokesperson and watchmen that both the harvester card and the permit are valid for entry to the forests.	Not enforced
5	Burning of branches and grass is prohibited, to prevent bushfire. However, it is permitted in agricultural plots if: the plot is enclosed by wet branches and leaves; the fire burns at the end of the day in non-windy conditions; the burner remains present and ready to intervene if the fire spreads.	Unstable
6	Preventive firebreaks can be put in place only after the regional government publicize the circular and under the control of Forest Service offices where the vegetation is worthy. The local people should be informed 15 days before any operation.	Enforced
7	Anyone who cuts or in any way uses forest resources without an established authorization should be brought to the (nearest) Forest Service office.	Not enforced
8	Mobile herders who arrive within the rural jurisdiction should have and their vaccination card and show it to the veterinarian for control of validity. With the help of the local spokespersons and watchmen, the veterinarian informs newcomers about rules they must observe in the current local convention.	Unstable
9	The return period of the transhumant herders is June and July	Enforced
10	Any transhumant herder should contribute to well-management costs, through a fee of up to 0.05 USD/month/head for small ruminants, and 0.1 USD for large ruminants; for motorized wells ( <i>forages</i> ), the fees are 0.15 and 0.30 USD/month/head respectively for small and large ruminants.	Unstable
11	To facilitate access to wells, motorized wells ( <i>forages</i> ) and natural pools, the local government should delineate animal lanes of 200 m in width. Agriculture is prohibited in lanes.	Not enforced
12	For protection of the natural pools, it is prohibited to: settle animals, cut trees, and practice agriculture in a 500-m perimeter around them. Anyone who breaks these rules will be subject to current forest laws and will also pay 10 USD to the local spokespersons, who should deliver two receipts: one for himself and a second to the local government Specialized Commission on Natural Resources and Environment.	Unstable
13	During the rainy season, animals must be enclosed or guarded by a herder. Therefore, the local government council should fix the dates for guarding and releasing, and should make a copy of the circular notifying these decisions to the Specialized Commission, local technical services offices, Village Chiefs, local spokespersons, to disseminate the information to as many people as possible.	Unstable
14	Lost animals, when found, must be declared to the Village Chiefs who should inform the local government by a month, for record.	Unstable

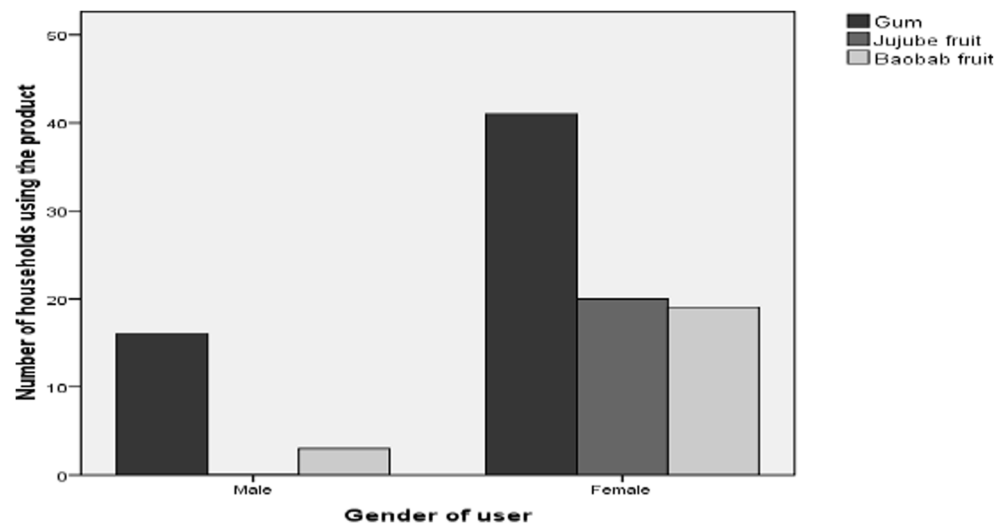
Source: The revised local convention of Koussanar, pp. 5–9

market. By doing so, the project has increased the attention men pay to the wild fruit business, in which they now participate by buying women's produce at low forest-edge prices and selling it in the lucrative urban markets. However, women still control the collection stage of the wild fruit business despite the growing interest of men (see Fig. 1).

In particular, men are now more interested in *laalo*<sup>7</sup> (gum Arabic) since the sector increased in economic value.

<sup>7</sup> *Laalo* is the local name for the solidified sap of the *Sterculia setigera* tree. In Senegal, it is also referred to as *gomme mbepp*.

**Fig. 1** Gender distribution of users of wild fruits within the households



They mostly participate as wholesalers, buying quintals and sometimes tons of *laalo* from female harvesters, which they resell to urban merchants or processing industries in Dakar. Of the 17 men surveyed, seven were the main wholesalers in the three villages of the case-studies: Boulel, Dawady, and Kolomba. Men who succeed in becoming wholesalers – there are no women among them – benefit from Wula Nafaa’s support in terms of the networking of local users with national micro-credit banks for short-term loans, as well as commercial contracting with processing industries in Dakar. To facilitate users’ access to financial credits, Wula Nafaa provides the warranty to reduce transaction costs in case of non-reimbursement.

The increasing local interest in the business of wild fruits is also related to the increase of *laalo* prices that Wula Nafaa has boosted by creating favorable conditions at both the forest edge and in towns. Because local users access credits, they have gained a bargaining margin since they can wait until closer to when the nearest weekly markets take place, and can hold out for higher prices. If they choose to sell at the forest edge, they can also get better prices by selling to those neighbors who are wholesalers and whose purchasing power has increased either because of their collaboration with the processing companies or through bank loans. For one kilogram of *laalo*, which is now the most exploited forest product in the three studied villages and even in the Rural Community of Koussanar, prices now reach 2.4 USD at the forest edge and 4 USD in town, instead of, respectively, 0.8 to 1.2 USD in 2008–2009.

However, because of these changes in their role in the market and their increasing bargaining power, insiders began rejecting local convention Rule No.4 that forced them to pay 12 USD per year, versus 20 USD for outsiders, to get a user card, and in addition to pay a fee per kilogram collected – fees differ among forest products depending on their market value. The obstacle to enforcing the rule that set the local taxes on the

wild fruit business was the evolution of interest in the business and changes of relative prices of wild fruits. Local people had initially argued that outsiders collecting wild fruits for sale in urban markets should pay a local tax to them. Now that they themselves are involved in the market as local commercial users and are thus required to pay these local taxes they are refusing to do so on the basis of autochthony, arguing that original inhabitants should not have to pay a tax.

This local resistance to payment of local taxes on fruits has forced the local government to give up enforcing Rule No. 4, although the levy of taxes in this sector was its initial motivation for engaging in the establishment of a local convention. Indeed, the local government president said that the council could not levy a tax on the outsiders’ business and not on locals’ business, but that it could levy a higher tax on the outsiders if local people agree to pay at least a lower tax (see Table 1).

As long as villagers perceive that Rule No. 4 is restricting their access to resources and related benefits, they will refuse to pay the taxes. Their refusal also reflects their sense of social justice according to which villagers are the owners of resources and should not have to pay to access them; outsiders, however, should pay.

#### “We are among Us!” Rules that are Perceived to Bring Unfair Punishment of Local Users

Traditional ways of dealing with interpersonal and community problems and conflicts have negated the project’s local convention rules about punishment. For example, Rule No.7 calls for punishment of anyone who uses forest resources in any form without an established authorization. People perceive the resources as locally-owned resources and do not feel the need to request authorization to use them, no matter what the source of that authorization as they are shareholders of a common resource in a former common-property system. The



spokespersons and the watchmen who are supposed to bring rule breakers to the nearest Forest Service office for sanction are generally reluctant to do so.

In the case of serious infractions, like the cutting of fruit trees or *laalo* trees, spokespersons and watchmen will try to persuade the rule-breakers not to continue, but they follow a friendly approach, exactly as in the traditional era. In their words, the principle is: “we are among us!” While accompanying one of the spokespersons who had become an officially trained local forest watchman, the lead author saw some neighbors smuggling wood for charcoal. He asked the spokesperson why he didn’t just inform the local forestry brigade. The spokesperson replied: “You think I am going to make enemies because of a project? And if they leave, how am I going to look my neighbors in the face? It is they who give me a hand every day, not Wula Nafaa; I am nothing without them [his neighbors] and vice versa. We are among ourselves!” (Dandiokho, 27 May 2012). In practice, conflicts over natural resource use are resolved in a friendly way; when the problem has to be turned over to an authority, proceedings stop at the village level with the intervention of the Village Chief. Brute sanctions are not accepted by locals, nor is involvement of state or project authorities in conflicts that are internal to the villages. These processes reflect Ostrom’s design principle on graduated and fair sanctions (Ostrom 1990), which become part of the readapted local convention.

#### **Rules that do Not Take into Account Resource Stocks Variability within the Commune are re-Interpreted or re-Adapted**

The variability of resources and their availability from village to village within the Commune has an impact on the enforcement of certain rules of the local convention, which are re-interpreted or re-adapted to match local perceptions of resource availability and of who may have priority of access.

Rule No. 10 was designed to mediate access to water sources between local pastoralists and incoming transhumant herders (see Table 1). This rule states that anyone, outsiders and insiders, who use wells and natural pools should have free access, while anyone using running water standpipes either for household needs or cattle watering should pay.

In practice, this rule is used differently from place to place: ‘as is’ in some places and times, and readapted in others. The case is different where access to non-motorized, hand-pumped, village wells is concerned. Here, outsiders do not pay a fee, but are allowed to water their cattle each day after villagers’ cattle are done when the available quantity of water is perceived as enough to water both. In other villages where the available quantity of water is barely sufficient to water local cattle, outsiders are refused access even if they are willing to pay the fixed fees.

For example, in Boulel, outside herders are able to access the wells as long as the villagers, through the Village Chief, allow them to settle as periodic transhumant herders. Indeed, the Village Chief grants permission for incoming herders to settle in the village area only if, having ascertained the size of their herds, he believes that there will be enough water for the home cattle as well as the incoming outsiders’ herds. Permission to settle in this village is conditional on herders’ agreeing to use the wells only after the local people are done, and not to cut branches for grazing. If there is any doubt, the Village Chief refuses the settlement request in the lands of the village – consequently also refusing the transhumant pastoralists access to water sources, including the natural pools. In Dawady, a village that has wells and running water, payment is only required for running water, as a contribution to the purchase of fuel and mechanical maintenance of the engine. In Dawady, wells are no longer really used by the local people; thus, they are freely available to the incoming herders, and there is no precedence of local access over outsiders.

#### **Discussions and Conclusion**

We have analyzed the participatory process that led to the creation of the local convention of Koussanar and assessed the effects of the inscribed rules and the changing natural resource markets – including increase of resource prices – on local people’s (‘insiders’) “environmental subjectivities” (Agrawal 2005: 164).

The local convention of Koussanar, a resource-governance instrument that gained support from the USAID-funded program Wula Nafaa, represents the existence of real efforts to put the means of regulation in the hands of the insiders and their elected local government. Through the establishment of the local convention, the Wula Nafaa project intervention really sought to promote local participation in the processes of rule building and enforcement of the rules in order to legitimate the local convention and the related ‘project environmentalism.’

While this process can be viewed as collective action on the codification of local forms of management, this case shows that the local collective must be located in hierarchical struggle. In contrast to Ostrom (1990, 2010), and most neoclassical theorists, this case takes account of unequal power relations – including economic, coercive, and discursive impositions – and the socially embedded nature of action (see Blaikie 1985 and many others). Ostrom’s (1990) elements of commons management – called ‘design principles’ – appear more as necessary elements within the landscape of collective action, but they do not tell us how or why some people profit while others slip to the margins (cf. Haller 2010; Agrawal and Ribot 2014). The analysis of such inequality requires an

understanding of social and political-economic struggle and negotiation.

The local convention development process is very similar to the process of codifying customary law that took place during the colonial period (Mann and Roberts 1991). Not only does it violate local rules – given that they can be skewed in their codification – but this codification also violates a set of processes by which decision making is embedded within given authorities and not within fixed rules. Rules in many places were traditionally flexible, with leader-arbitrated or collective processes of dispute resolution and problem solving (see Haller 2010, 2013; and Mann and Roberts 1991 for African cases). In our case, the insiders resisted in many ways the transfer of the exercise of the means of regulation by the project, through selective enforcement, rejection, circumvention, re-interpretation, or re-adaptation.

The strategies of resistance to the transfer of the exercise of the means of regulation reveal that: a) rules well matched to local norms and practices are applied; b) rules are rejected if local people believe that they disfavor local access to resources; c) rules perceived to bring unfair punishment to local users are reworked or modified to match local norms; and d) rules that do not take into account resource stocks variability and availability within the Commune are re-interpreted to favor locally valued management outcomes. These strategies show that environmental subjectivities do not just come from state intervention or the transfer of means of regulation, but that a more reflexive, power-sensitive, and strategic process is taking place, which gives back a sense of control over the institution-building process.

These strategies also demonstrate that insiders constitute their environmental subjectivities by reaction to rules and by resistance to the exercise of those means of regulation through strategies of reinterpretation, circumvention, and selective compliance with and enforcement of the local convention rules. While local people are governmental subjects, as aptly described in environmentality proponents' works (Agrawal 2005; Birkenholtz 2009; Robinson 2011; Fisher and Chhatre 2013), they also push back, actively asserting their norms using whatever bargaining power they have available to them (Scott 1976; Haller *et al.* 2015) – especially when the monetary value of the resources at stake has become significant or when they perceive a threat to a needed resource stock (see Faye 2014). In this case study, the rules on wild forest fruits and taxation were resisted because of the increase of prices, and rules on the use of wells by outsiders have been reinterpreted because of the perceived scarcity of the resource – as when a well has insufficient water for the cattle of both insiders and outsiders.

We described a case of external rules that might have generated governmentality, since insiders were given the means to collect and enforce access, and tax related rules that were rejected because local norms attributed use rights to insiders

rather than outsiders. Insiders saw ownership of resources as being attached to autochthony, which historically confers the right to tax and to have precedence of resource access over outsiders. The project wanted to make them into good environmental 'tax subjects' but they refused despite holding the means of regulation in their hands.

We have shown here that local people are adept at maintaining their bargaining power with outsiders without entirely excluding them, yet still demanding a fair deal (see also Chabwela and Haller 2010; Haller *et al.* 2015). Locally capturing and changing the local convention is one strategy that must be placed within villagers' long historical experience of marginalization and exploitation. From colonial times to the present, people in Eastern Senegal have experienced the usurpation of common-pool resources by private forest merchants backed by the government (Ribot 1995, 1998; Faye 2014). Their current engagement with the local convention seems to be a continuation of the fight to correct this longstanding injustice by which government officials incessantly give outside commercial users open access to natural resources (Faye 2014).

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