Chapter 5
Adding Scepticism About 'Environmentality': Gender Exclusion Through a Natural Resources Collectivization Initiative in Dionewar, Senegal

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Abstract Research on the commons has demonstrated the capacity of local people to define efficient common resource management institutions and organizations that enforce them. However, little is still known about the motivations of the actors that craft bottom-up institutions. Environmentality proponents tie such motivations to the environmental awareness coming from local participation in previous governmental interventions in natural resource governance. This chapter is a critique of the environmentality concept. Therefore, it argues that the ability and knowledge to develop environmental institutions comes mostly from the capacity to tap into environmental discursive strategies and to articulate them with other dominative discourses rather than from participation in previous project interventions. Those dominant actors craft new rules to suit their own interests rather than developing envionmental sensitivities. Drawing from ethnographic research in Senegal's Saloum Islands, the chapter demonstrates that young men, despite the fact that they have never been involved in development interventions, by idealizing collective interest have formulated very sophisticated ideologies to manipulate women who participated in any projects in the area. The reputation of women in Dionewar is both a social construct and a result of a changing (environmental) context. The collective-interest-idealized initiative (collectivization) created gender exclusion, increased gender-based conflicts about access to a wild fruit called *to'oy* and fostered privatization.

Keywords Collectivization • Environmentality • Privatization of natural resources • Gender exclusion • Conflicts • Project interventions

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Introduction

Drawing from empirical cases in very diverse contexts and types of natural resources all over the world, proponents of commons theories have demonstrated the capabilities of local people to develop strong institutions for sustainable natural resource management (McCabe 1989; Ostrom 1990; Becker and Ostrom 1995; Berkes 2009; Haller 2010).

In practice, local institutional arrangements, when registered, are called Local Conventions (Dicko 2002; Djiré 2003, 2004) in Senegal. Development interventions think of Local Conventions as being regulations that are inscribed and formalized on paper, and when they are signed by local administrative authorities. Where they are initiated by environmental projects or NGOs, the implementation of Local Conventions usually collides with local resistance or sabotage because of the gap between formal rules and local people's prevailing informal norms (Faye et al. 2012).

Local Conventions have proved socially integrative, politically correct and ecologically effective for development interventions because of the participation spaces that they open up. However, in most cases, such conventions have not brought the reduced levels of conflict promised by their advocates because they have failed to guarantee equity and social inclusion in natural resource management (Ribot 1999; Agrawal and Ribot 1999; Agrawal and Ostrom 2001).

Development organizations are still supporting the creation of formal Local Conventions and the formation of organizations (committees) throughout the countryside, despite their weaknesses. However, once they leave, the game re-opens. Post-project interventions benefit those actors that can build a convincing discursive strategy to subtly craft environment-sensitive new rules that enable them to control the access to valuable natural resources.

Environmentality proponents link the power to establish local environmental institutions with actors' experience of participating in previous project interventions. Agrawal calls environmentality 'the knowledge, politics, institutions and subjectivities that come to be linked together with the emergence of the environment as a domain that requires regulation and protection' (2005a: 226). *Environmental subjectivities* come into existence when local people 'come to care for, act and think of their actions in relation to something they define as the environment' (2005a: 164).

Such environmental subjectivities can be considered as community-based natural resource projects' 'lasting effects' on governance (Robinson 2011: 5). Local residents in Kumaon in India, because they were involved in regulatory practices instead of being subject to colonial imposition – which they resisted – behaved afterwards as *environmental subjects*. From being former resisters, local residents even requested more regulations than the state forest service could provide or implement (Agrawal 2005b: 171). Birkenholtz (2009) demonstrated that resistance to, and support of, state groundwater conservation by local residents differed according to the various subjectivities (caste, class and ecological conditions) of farmers involved in the processes. From his perspective, the making of environmental subjects draws both from governmentality and hegemony (social power and subjectivity).

Fisher and Chhatre (2013), in the same line, demonstrate the way in which political action against restrictive conservation has altered local agency towards a collective decision to protect and manage forest resources in the case of the Dhauladhar Wildlife Sanctuary (DWLS) in Himachal Pradesh, India. The exposure of local residents to resource management initiatives and their attendant environmental messages produced lasting effects despite the failure of projects. The Joint Forest Management project promoted activities to both disseminate environmental messages within communities and conceive new local management initiatives (Fisher and Chhatre 2013).

Robinson also found similar lasting effects after an environmental project intervention supported by the German government in Kaolack in central Senegal. From previously engaging in collective sabotage of regulations set by the Forest Department before the 1990s, certain local residents collaborated with local government officials and the Forest Department to enforce new forest use restrictions in the 2000s (Robinson 2011).

However, a growing literature questions the concept of environmentality. A number of scholars are increasingly sceptical about the argument that the existence of participation spaces engenders the crafting of new institutions that are 'socially empowering, developmentally progressive, and ecologically stabilizing' (Mawdsley 2009: 249). Cepek (2011) argues that, although the Field Museum's community conservation projects constitute a regulatory rationale and technique, they do not transform Amazonian Ecuador Cofan people's subjectivity according to plan.

Bose et al. (2012) showed how scheduled tribes like the Bhil, although they have attempted to claim their rights to forestland and resources, were increasingly incorporated into the government administration, but ended up being disempowered and politically fragmented.

Actors' participation in projects does not necessarily increase local awareness and environmental shifts. Instead, targeted actors may use co-management as an opportunity to actively transform habitual power asymmetries, as Caruso (2011) showed in relation to the Ashaninka Communal Reserve in Peru. 'The local partner may be neither evidently empowered nor disempowered…but rather be exploring unexpected strategies for creating political space and re-casting relationships with the dominant partners' (2011: 624).

This chapter contributes to the counter-environmentality literature and demonstrates that the power of a particular actor or group of actors to build strong institutions and control natural resource management depends on their ability to tap into environmental discourses and make them coherent with other supportive ideologies. This knowledge and power to craft environmental institutions do not necessarily depend on experience in participating in previous project interventions or on the mobilizing of environmental subjectivities.

The collectivization initiative in Dionewar Island shows how women were excluded and resources (and related financial returns) privatized, drawing from the collective interests discourse. Collectivization entails shifting from a situation where multiple actors can access resources openly or with minimal regulations to another form of access where a management body strictly regulates access for the

benefit of a specific user group, operating on behalf of an imaginary public community. Collectivization enables the implementation of a new system with 'self-profitable' rules and norms. Thus, it provides a case against the theory of environmentality and shows how environmental subjectivities can be strategically and selectively used for exclusion rather than for environmental sensitivity. By gender exclusion, we refer to the restriction of women's access to forestry resources following the collectivization project initiated by young men with the support of elder male leaders and some high officials from the elected rural jurisdiction.

Following this introduction, the chapter is composed of six sections. The next section presents the methodology and the research setting. The second describes the background of natural resource management in Dionewar in the era of women's control. The third section analyses changes in gender relations around natural resource management after the greater commoditization of forestry resources and the introduction of processing opportunities. The fourth demonstrates how the collectivization initiative has resulted in gender exclusion and exacerbation of gender-based conflicts. The fifth section discusses the way project development interventions serve as opportunities for some groups to capture resources and exclude others. The conclusion sums up the results and draws several development and governance implications, and pro-equity recommendations.

Methodology and Research Setting

The data presented here were collected from 2010 to 2011 in a 4-year research programme (2009–2012) funded by the European Union and the French Environmental Global Fund (FFEM). The author was working in this programme as Researcher, coordinating fieldworks and scientific writing, in the think-tank responsible for research tasks, known as *Initiative Prospective Agricole et Rurale* (IPAR), in Dakar, Senegal.

The methods were essentially qualitative, with interviews, focus groups and participant observation. An assistant conducted in-depth ethnographic surveys in each site. The author personally coordinated the research and conducted temporary missions, representing a total of 3 months, and participated in an event during the action phase conducted by ENDA-Graf Sahel (*Environment et development en Afrique Sahelienne-Groupe de recherche et d'action formation*), the NGO responsible for the programme's development initiatives. More intensive 2-year fieldwork was conducted by three research assistants on each of the three sites in Senegal jointly chosen by the research team and the development team. This chapter draws on data collected in one of these sites, the Saloum Delta.

The programme was an action-research initiative with 2 years of ethnographic fieldwork and 2 years of observed intervention (researchers documented the intervention action of the development partner to signal on-going changes provoked by the intervention and to suggest patterns of adaptation of the approach). The programme was implemented regionally in Senegal, Mali and Burkina Faso, with two

institutions in each country sharing responsibility for research and actions. The general coordination was in the hands of a French NGO known as *Groupe de Recherche et d'Echange Technologique* (GRET) and a research institute based in Ouagadougou called *Laboratoires Citoyennetés*.

This paper focuses on Senegal's Saloum Islands, consisting of 19 islands spread across the Saloum River. Dionewar is one of them. Dionewar refers both to the name of a small island or village among the 19 located throughout the Saloum River – Fleuve Saloum and to a rural jurisdiction – Rural Community.[1] The Dionewar Rural Community is composed of three island-villages: Dionewar, Falia and Niodior.

It is located in south-western Senegal in the Fatick Administrative Region, the department of the same name and the Arrondissement of Niodior.[2] It stands at the delta of the Saloum River and the periphery of the Saloum Delta National Biosphere Reserve known by its French name, *Réserve Nationale de Biosphere du Delta du Saloum* (RNBDS). It covers an area of 316 km^2 and is delimited to the west by the Atlantic Ocean, to the east by Djirnda and Bassoul Rural Communities, to the north by Fimela Rural Community, and to the south by Toubacounda Rural Community (Faye et al. 2011). See Fig. 5.1.

The 1998 agricultural census estimated the population of Dionewar Rural Community at 11,274 inhabitants, with a population density of 35.68 inhabitants per km^2 (PLD 2003). Data from PEPAM[3] indicated 12,864 inhabitants with, respectively, 5057 on Dionewar Island, 7058 on Niodior Island and 749 on Falia Island. The population is more than 99 % composed of Serer Niominka and less than 1 % of migrant Fulbe who work mainly for autochthons as seasonal herders, especially in Falia village.

Background to Natural Resource Management: Did Women Control Resources in Dionewar?

During pre-colonial times, in African societies, natural resources on non-agricultural lands were generally subject to open access conditions, without any form of family or individual ownership. Because of their abundance, these resources belonged to those who needed and used them (Bromley 1991; Idelman 2008). Open access or

[1] The term Rural Community is used to refer to the most local and rural decentralization entity, not to a community living in a rural area.

[2] In Senegal, the administrative and territorial architecture is as follows: 14 regions composed of several departments and each department composed of several *arrondissements*. The jurisdictional architecture is composed of the 14 regions, each composed of both Communes (urban jurisdictions) and Rural Communities (rural jurisdictions). Both comprise regions, but there are two different authorities: the administrative and territorial authority is nominated by the President of Senegal and the political authority is chosen through local elections on a party-political basis.

[3] http://www.pepam.gouv.sn/acces.php?idloc=09222001, February 2010.

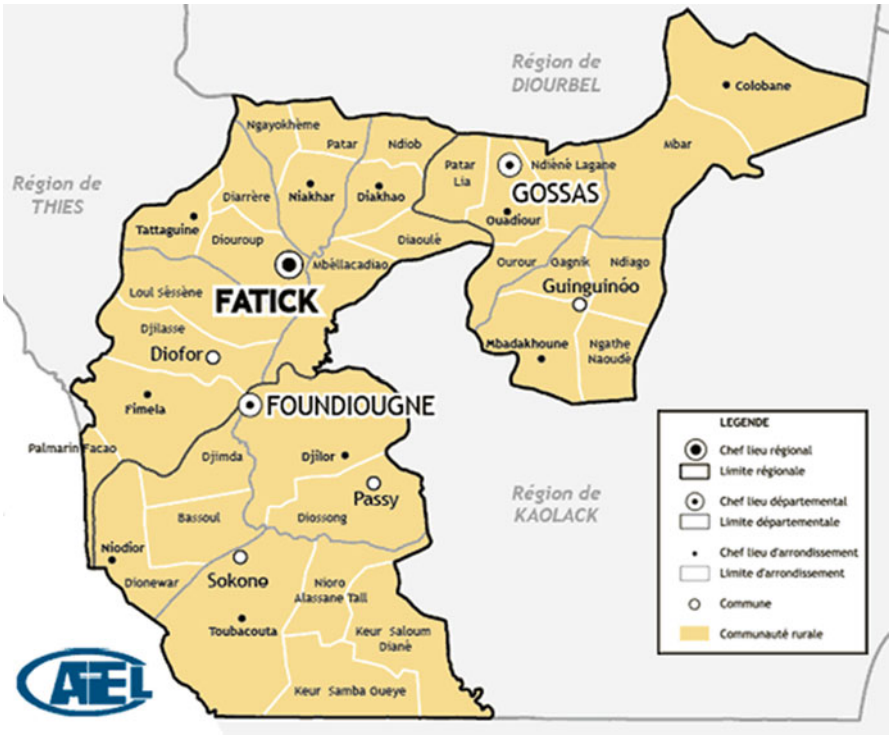

Fig. 5.1 Map of Fatick administrative region (Source: http://www.au-senegal.com/carte-administrative-de-la-region-de-fatick,033.html)

very limited regulation often resulted in resource degradation or scarcity. The 'rule of the game' (North 1990) that used to guide natural resources governance were, according to Guèye and Tall (2003): 'first come, first served'.

During the colonial period, the argument about the scarcity of resources resulting from degradation and droughts became more compelling, leading to greater control over resources and restriction of access rights. Some cases of individual or collective ownership appeared and replaced open access (Bromley 1991).

In Senegal, valuable resources like forests with high commercial wood and domestic energy potentials were under the control of the state (Ribot 1995, 1999, 2001). Local people were stigmatized as 'degraders' and strict control was exerted by the forestry service to limit their access to valuable resources surrounding their villages (Ribot 1995, 1999, 2001). The same logic was reproduced during the post-colonial period in the 1960s.

In the 1970s and the early 1980s, all over the world, local resistance and the inefficiency of colonial and early post-colonial authoritarian policies discredited the strict control of local people's access to natural resources. In the 1990s and 2000s, the trend towards Local Conventions accelerated following the passage of national decentralization laws in 1996 and decentralized forestry policies in 1998.

Development projects and NGOs played a dominant role in promoting and implementing Local Conventions throughout Senegal.

Supported by legal experts, development project proponents argued that the Decentralization Code of 1996 called for the establishment of tools to enable local people to participate in natural resource management, with support from locally elected authorities. The term 'modern and legal tools' used in the Decentralization Code has been interpreted as a call for Local Conventions to be elaborated (Sow 2005; Granier 2007).

In response to Local Conventions not being named as legal tools in the decentralization laws, and the contradictions signalled in the law itself, the Forestry Code of 1998 has been under revision since 2009. Almost all parties have recommended formal and legal recognition of Local Conventions in the upcoming law. Because of state resistance, especially by the National Forest Service and the arrival of a new political party after the 2012 presidential elections, the process has been suspended.

In Dionewar Rural Community, the *Detarium senegalensis* is a wild tree known as *ndo'oy* (in Seereer).[4] It had been managed as a common resource; the only restrictions on the use of the *to'oy* (the fruit of the *ndo'oy* in Seereer) were applied at the start and end of the harvest period. Since 2010, however, the management of *to'oy* has been collectivized, supposedly in the interest of the whole community, for better equality.

In Dionewar, women and children used to be the only commercial users of the *to'oy*, selling hard fruits to middlemen from urban centres and earning a significant income. Women benefited most from the commercial exploitation as children took part just to get cash for their school requisites. Intervening agents (state-based and civil-society-led), empowered women with organizational assistance, training in processing, and rotating micro-credit funding and practices. Thus, women gained knowledge and adopted strategies to maximize their revenues from these interventions.

However, since 2010, men have opposed women's control over *to'oy* exploitation. Interviews reveal that the reason differed from a group to another. Women argued that men showed an interest in *to'oy* only when the fruit became more valuable because of the processing facilities that they had obtained from development interventions. Young men thought that women could not guarantee the sustainability of the *to'oy* trees, which are depleting because of age and lack of protection against outsiders. In any case, men managed to reverse decades of history in which women had been the primary beneficiaries of natural resource management interventions. Although accused of being the only group to profit from natural resources and the benefits thereof, women used to invest some of their earnings in public or collective interest infrastructures and needs (mosque, school requisites and social grants to students in national universities). What is clear is that natural resources in the area attracted a lot of interest from the state and development interventions; therefore,

[4] The social group living in the Saloum Island belongs to the Seereer ethnic group; they are called Seereer Niominka.

the control of natural resources implied automatic partnership with those interventions and a right to the related material flows.

It is common knowledge in Senegal that the Niominka ethnic group persons are hardworking – women often more so than men (Pélissier 1966; Dimé and Fall 2009). In this chapter, rather than stating that women work harder than men, we attempt to explain women's reputation as being both a social construct and an effect of a changing context.

The social divisions of labour within the Niominka group prescribe that men undertake fishing and cereal cultivation, and women collect shellfish and forest fruits like *to'oy*, baobab and oil palm fruits. Recent environmental changes have undermined men's livelihood activities, as fish have become scarcer and salinization has reduced crop yields. These changes have reduced returns on men's labour, exacerbating the rural exodus towards national urban centres and emigration to Western Europe (Fall 1992), often illegally, via artisanal boats. The Saloum islands have been a point of departure for illegal emigration, very long before the now well-mediatized tragedies.

In contrast to men however, women have continued to engage in agriculture. The crops women used to grow, which formerly held little commercial value, have recently become more valuable because of new processing and marketing facilities in urban areas (Faye et al. 2011). Further, it has become easier for women to access land as men have abandoned agriculture for other economic activities or more leisure time (Faye et al. 2011).

In the early 1980s, with support from the National Department of Fishing, women formed strong economic interest groups (known by their French acronym, GIE: *Groupement d'Intérêt Economique*). The creation of GIEs in the fishing sector corresponds with a global trend of peasant organizations, producer groups and multiple other forms of grassroots organizations (Gellar 1997; Dimé and Fall 2009) in the rural area as new forms of organizations capable of receiving development aid in a context of structural adjustments or the denying of the 'providence state' (World Bank 1989; Faye 2006; Totté et al. 2003). However, men were not members of the GIEs as the work undertaken by those GIEs (the collection and processing of shellfish and wild fruits) was labelled as women's work. It was more a social division of labour than disinterest or inactivity, as young men were engaged in fishing.

On the island of Dionewar alone, in 1994, more than 20 GIEs with over 300 women members came together to form a Local Federation of GIEs, known by the French name *Fédération locale des GIE* (FELOGIE). The formation of a network of GIE federations was a national initiative of the Fishing Department, especially in the artisanal fishing sector.

Therefore, all GIEs within a local jurisdiction formed a FELOGIE, all local federations of GIEs throughout an administrative region were organized into a Regional Federation of GIEs and the latter formed the National Federation of GIEs known by the French name *Fédération Nationale des GIE de Pêche* (FENAGIE-Pêche).

Consequently, any form of state-based intervention in the fishing sector has to pass through these organizations. Non-state – civil society-based – interventions

also choose to work with them as they are quite well organized and have a lot of experience and interests in natural resource management or conservation.

One of the main partners of the Dionewar FELOGIE was the World Environment Fund (WEF) that funded the installation of processing technologies and started training women in the processing of both forest and aquatic products at the end of the 1990s. Since then, the FELOGIE has partnered with all development interventions in the village because of its members' dynamism and organizational expertise.

Federation leaders have constructed strong networks through knowledge exchange visits sponsored by WEF, International Union for Conservation of Nature (IUCN) and other external intervention agencies. The federation has achieved national renown, twice winning the national award for women entrepreneurship, under the Socialist Party government in the 1990s and the Liberal Party government in the 2000s.

With more than 300 members, the FELOGIE was attractive to any ruling party, and these sought to ally with it through the Ministry of Family and Women's Entrepreneurship. The FELOGIE gained in political mobilization capacity and visibility. These prizes added to the federation's credibility with respect to politics and the development sector.

At the same time, women become very conscious of development interventions and the advantages to be gained from the classification of the Saloum National Park as a UNESCO World Heritage Site in the 1970s. They used their GIEs and their federation to partner with external intervening agencies.

With IUCN, they created a Beach Village Committee in 2004 because this agency was interested in protecting mangroves and cleaning beaches. They extended its intervention to fit the need of the national programme, Women and Shellfish, run by the NGO Environment and Development in Africa (ENDA). They used management committees to connect with development interventions and capture the resultant benefits such as rotating credits, investment opportunities, visibility and the reinforcement of their control on natural resources.

They adapted management committees to suit the needs of the incoming agents, changing the name of the committees but leaving the same people in charge. Throughout, village women dominated important positions on the various committees. In this way, women were able to make use of external interventions to serve their needs, successfully reversing the trend in development for rural people to be manipulated by external projects.

Power relations within the community were changing in response to shifts in changing economic opportunities. At local level, men began complaining that projects favoured women, accusing external agents of causing a disruption of local social structures by empowering only women and never men.

Observation and interviews showed that women were very advanced compared to men in terms of organization and collective action skills in Dionewar village. In the neighbouring villages, Rural Communities Niodior and Falia, similar developments took place. Men felt marginalized and discriminated against both in the field

of development and in the crafting of the local institutions about natural resource management, especially aquatic and forestry resources.

Young men used their dynamism in cultural and sports associations to gain power in the political area. They allied with young women who could not access positions of leadership in the local federation. Together, young men and young women persuaded the leader of the cultural and sports association to stand as a candidate for the local elections, which they succeeded in winning democratically with support from their colleagues on the other two islands. Following the election, the situation began to change; young men, working with the new president of the Rural Council, began to pursue a hidden agenda against women.

Projects and Processing Facilities: Advantages and Side Effects on Women

This section demonstrates that, when the economic and political stakes around the management and uses of natural resources become valuable, men's interest is aroused and women are exposed to exclusion, no matter how long they have been in the sector.

Although there are no legal constraints on women accessing natural resources in Senegal, women still play a secondary role in their management and control (Bandiaky 2011). The (economic) value of natural resources often rises with development interventions following the imposition of local exploitation taxes and benefit-sharing schemes for partnering actors.

When the value of natural resources increases, competition over their control also increases, and the likelihood of women's access decreases. As Monimart (1989) and GESTE (2010) observed about land access in Mali and Senegal, respectively, women get access only to non-valuable resources or resources that are not needed by men.

In Dionewar village, the introduction of processing technologies opened up new market opportunities for women, which in turn changed men's and women's stakes in natural resource management. Resources that had been under women's control when used only for subsistence became objects of competition between women and men once they took on a commercial value. In Dionewar, control of *to'oy* fruit became contested after development interventions funded equipment, materials and training for fruit processing.

Across West Africa, governments and development actors are seeking to create conditions favouring the processing of natural resources at regional, national and local level, on the premise that marketing processed goods will necessarily capture more value added than marketing raw materials. The *to'oy* case represents an example of this trend.

The provision of processing equipment and training by development interventions in the Saloum Delta, and in Dionewar particularly, raised the economic value

of forest fruits, especially *to'oy*. Whereas net revenue for unprocessed *to'oy* is about 6 USD per bucket-load, juice fetches around 12 USD for the same unit. Juice is marketed in urban areas, where businesswomen have begun to offer good prices. Hence, local women have gained greater awareness about these commercial opportunities. As a result, local women have been able to exercise a greater degree of power in the market for *to'oy*. From being simple harvesters, they have become processers and traders in urban markets. Occupying these different roles has provided them with more negotiation power on sale prices as compared to trading with merchants coming to the village to act as middlemen in supplying urban centres with *to'oy*.

With these expanded opportunities, almost all Dionewar residents became aware of the benefits of fruit processing. The FELOGIE, which managed the processing facility, began renting materials to processors regardless of whether or not they were members of the organization. Table 5.1 shows the fees charged for some services.

The FELOGIE also defined new regulations governing labour and benefit sharing between individual GIEs and the federation. GIEs are required to provide several days of labour for the federation before they work for their GIEs or for themselves. This rule is a condition for access to the processing unit. The revenues collected during such collective work are dedicated to the maintenance of the processing units and the purchase of new materials, and also support the credit fund during non-exploitation periods.

Subsequent to the processing and market opportunities, there was a rush on harvesting *to'oy* in the village. Thus, the resource became subjected to competition between individual women, GIEs and new-coming males, looking to maximize their margin in a context of rising relative prices. Although the federation tried to regulate the competition by rotating producers' rental of processing technologies, prices rose in both local and urban markets for processed and non-processed *to'oy*. Hence, the rotating rental no longer regulated the exploitation pressure efficiently, and the fruits were harvested before they became ripe.

The Village Beach Committee extended its domain of intervention with the support of IUCN in the early 2000s and, later on, of ENDA ONG from 2006 to 2008. This was a first attempt to institutionalize the regulation of competition for resources. In this Village Beach Committee, a sub-committee composed exclusively of women

Table 5.1 Prices for processing various forest products

Services	Tariffs (USD)	Observations
Rent of heating materials	0.25	Fixed price
Rent for shell transformation	0.05	Calculated on the duration of the process
Rent for cymbium transformation	0.2	Calculated on the duration of the process
Rent of live vest	0.1	Daily based
Rent of juice-making materials	0.2	Per litre

Source: Faye et al. 2011: 50

was specially commissioned to guard all natural resources: aquatic and forestry, including *to'oy*.

As men began to be interested in harvesting and processing *to'oy*, they refused to obey the Village Beach Committee and the subsequent surveillance sub-committee. Women cited some cases of physical abuse of women in charge of surveillance by men involved in harvesting, especially when they tried to enforce the regulations about access. Therefore, women felt powerless to control men's activities. As the committee president stated, '*What can a woman do to compel a man when he resists*?'[5]

Although processing opportunities promoted by development interventions increased women's powers and income, they also aroused men' interest and justified their initiative to control resources and related financial benefits. The next section describes the discursive strategies deployed to legitimate the collectivization initiative and the resulting conflicts that stemmed from it later, after elder women realized the real motivation behind the new management committee.

Collectivization: Legitimating Discursive Strategies and the Emergence of Gender Exclusion in Dionewar

This section deals with the way the collectivization – management for all the islanders – initiative in Dionewar drew on different discourses (relating to religion, conservation and humanism) to convince local people, and elder women in particular, to accept the prevailing monopoly over forestry resources, especially *to'oy*. It also shows the effects of the implementation of the collectivization initiative on gender relations around natural resources – conflicts among groups on Dionewar village-island.

Since 2009, a group of young people has been collectivizing the management and exploitation of *to'oy*. The group is entirely composed of young men and young women formerly involved in the culture and sports movement, and who supported the former president of this movement in his campaign to be elected president of the Rural Council, as already mentioned.

After winning the election, the new president pushed young people to take the lead in natural resource management. It should be recalled that the new president of the Rural Council had been member of the Rural Council and had headed up the Rural Council's environmental and NRM technical committee. However, the president said he did not want to appear as a youth supporter because of his previous long-time opposition to the FELOGIE women in relation to natural resources and project intervention issues. He thought that revealing his true position would lead women to accuse him of taking his revenge on them. However, the conflict between the local president and the federation president had been obvious to us (the research-

[5] Interview with the president of the surveillance commission of the former Beach Committee in 2010 by the author and his research assistant in Dionewar.

ers) since the contact meeting with the Dionewar village people in July 2009. Vigorously reacting to long speeches by her husband (who was village chief) and the local president, the federation president complained that men accused them of monopolizing natural management-related interventions and the benefits thereof, but that, when they invite men to a meeting with partners, the men try to prevent them expressing their opinions and wants.

Indeed, during the elections, the federation had supported the then opposing candidate to the current president of the local government. The current president never unfolded his thoughts about natural resource management, on the pretext of not wanting to be accused of attempting to out-compete the senior women who had been exerting a monopoly on the control of natural resources with the support of development interventions ever since the 1970s. '*Although the management of forest resources is transferred to the rural jurisdiction, I don't want to behave as a partial president*'.[6] He added that these women were like his own mother as most of them were the same age as his.

During a general assembly after the Muslim Friday Prayers at the mosque, a group of young people, led by a graduate recently returned from studying Islamic Studies in Egypt, announced their intention to collectivize the management of forest resources, and *to'oy* in particular. The group offered to volunteer to monitor forest sites, limit access and regulate harvesting operations. They mobilized several discourses to convince other residents to accept collectivization. They aimed especially to convince senior women in the federation, who had exercised long-standing control over natural resource management. Analysing the youth group's arguments, we identified three discourses to which they appealed: those based on religion, conservation and humanism.

The religious discourse focused on the need to enlarge and renovate the mosque, a socially desirable outcome in a village where all residents are Muslim. The young people argued that Dionewar needed to renovate the mosque in order to assert its position vis-à-vis surrounding islands, such as Niodior and Falia, which had larger and more elaborate mosques. There had long been profound rivalries between these three villages, including competition over mosques. As a result of this appeal, the Notables' Committee (senior men) and the Mosque Committee supported the initiative for collectivization and thanked the young people for agreeing to volunteer in the interest of the village and the 'Will of Allah.' The senior men welcomed and blessed the collectivization initiative, which was presented to them as a mechanism to fund the renovation of the mosque and to bring it up to the same standard as that in neighbouring villages such Niodior. However, as already discussed, elder women used to contribute to the renovation of the mosque and reinvested in social issues such as buying school requisites and providing subsidies to students attending universities in urban areas. Senior women had also contributed to the renovation of the mosque from their income from shell-fishing activities, not only from *to'oy* returns.

[6] Interview with a Rural Council's high official in 2010 by the author and his research assistant in Dionewar.

Therefore, the argument about imposing collectivization to fund the renovation of the mosque was not strong, if it was the real single reason.

The conservation discourse to which the young people appealed was more elaborated. The lack of surveillance due to women's inability to enforce regulations on access to *to'oy* was a strong argument. It was said that, because of weak surveillance, people competed over the resource and harvested all the fruits before they were ripe. The notables supported the young people's contention that early fruit harvesting threatened the natural regeneration of the resource. They both argued that, when no fruit was left to decompose on the ground, there could be no new process of germination during the rainy season. The depletion of the population of *to'oy* trees and the absence of young trees were proof that the resource was being depleted, according to collectivization proponents.

The humanistic discourse appealed to the notion that collective interests or the ideal of common-good resources should be prioritized over the interests of individuals or particular groups. This discourse was an implicit critique of the GIEs, although they were not as individualistic as the men claimed: they reinvested some of their earning in public issues like the mosque, education, rotating credit among women and household expenses. The young people argued that the community contained many people who wanted to work but who could not because of their physical condition (e.g., children, old men, people with disabilities). Hence, the aim of collectivization was to enable these groups to benefit from management on the basis of collective interest. As a result, a Forestry Resource Management Committee (FRMC) was proposed to favour equity through the enforcement of new rules and regulations about surveillance, access and redistribution of profits. It was a bottom-up initiative without project support.

The FRMC's crafting of new rules and regulations was a way for the young people supported by notables to institutionalize their discourses. Hence, the FRMC proposed rules for the surveillance and control of forest resources. The rules over harvesting *to'oy* included a restriction that only FRMC members could harvest fruits in forests. Anyone breaking this rule would be fined 1 USD per fruit collected. There were also distributive rules: the FRMC was only to collect and sell *to'oy* to women named on a list established each week. *To'oy* was to be sold to local women at a fixed price of 6 USD, whereas it was to be sold to outsiders for 10 USD. This price differential allowed women to earn a small profit by reselling fruits. The money collected from the sale was to fund the enlargement and renovation of the mosque during the first year. Afterwards, these revenues were to be used for social investments that would benefit everyone, including people with disabilities, children, and old men and women.

During the first year, senior women applauded the initiative. The president of the federation said that women were receiving greater benefits than they had before. Women thought this was a consequence of the collectivization system. However, conditions during the first year were somewhat unique, due to a bumper crop of fruit. This meant that, without the involvement of young men, women would not have been able to harvest and processes all the fruits available. Because of the shortage of labour for processing, the federation president convinced senior women

members of the local federation to offer free training on processing to young women. Women did not wonder whether the conditions of abundant fruit would continue in the coming years.

The senior women's agreement to support collectivization was based on several rationales, according to older women interviewed. The first reason was the abundance of *to'oy* in 2009 during the period of the FRMC's establishment. Women argued that *to'oy* fruits were so abundant in the forest that, without the intervention of young men, they would have rotted. The second reason was the idea of equity, also humanistic, subsequent to the creation of the FRMC both in the generation of 'public money' (for the whole village) and in the reinvestment in the mosque. Although more than 4500 USD were collected for the mosque renovation, the FRMC president was accused of committing fraud because of the lack of receipts from sales. Senior women in particular thought that the large amount of sales should have produced more money than was accounted for, and they called for the dismissal of the FRMC president. The third argument put forward was that the collectivization was also supposed to produce efficient ways to accumulate 'private money' for the FELOGIE from the rental of processing equipment to those newly involved in processing.

In 2010, the second year of collectivization, the situation changed. *To'oy* fruit was not as abundant as the previous year, young women had gained experience in processing and the FRMC was aware of the greater revenues available through the sale of fruit processed into juice.

The FRMC members decided to harvest the fruits, bring them to the village and sell them to those registered on the processors' list established by the collectivization committee prior to any harvesting operation. Senior women complained, accusing the committee of preferentially selecting young women on the list. Young women, in turn, affiliated their GIE with the federation, which had been formerly monopolized by elders. This meant that senior women could not refuse young women access to processing technologies so long as they agreed to pay the rental fees, even if the latter did not have access to leading positions.

Conflicts spawned a blame game between actors. Elder women accused young men of using young women to take revenge for elders' past control over natural resources, and of confiscating the resources that constituted their power. For their part, the FRMC accused senior women of aiming to monopolize the management of *to'oy*. As the FRMC president put it, '*We have left them with shellfish resources; they have to leave forest resources to us*'.[7] The president of the Rural Council supported the FRMC, arguing that '*management power over forests within a rural jurisdiction has been transferred by the state to the Rural Council [local government], and that of aquatic resources not. That's why I said yes to this initiative on forestry resources*'.[8]

[7] Interview with a Rural Council's high official in 2010 by the author and his research assistant in Dionewar.

[8] Interview with a Rural Council's high official in 2010 by the author and his research assistant in Dionewar.

In 2011, an action research programme was initiated in Dionewar, with intervention activities conducted by EVE (*Eau-Vie-Environnement*, a national NGO which is a sub-entity of ENDA-Graf) and the research tasks conducted by IPAR. The programme targeted the three villages within the Rural Community: Dionewar, Niodior and Falia. Following research results, EVE proposed to establish a Local Convention on natural resource management in each village, with an inter-village Local Convention to be established later to connect the three village-islands.

To enforce the Local Convention, ENDA decided to reinforce local organizations already dedicated to natural resource management. The programme had co-funding from the French Global Environment Fund (FGEF), which financed the establishment of a fund called Inciting Fund, aimed at supporting pertinent projects to be devised by local organizations working on natural resource management.

During the negotiations about the Inciting Fund, formal organizations were targeted as interlocutors and potential beneficiaries. Therefore, in January 2012, the president of the rural jurisdiction and the FRMC leaders understood this choice as a call to convert their initiative into an official organization. However, given that all development projects that intervened in the village partnered only with GIEs and the FELOGIE, they converted the FRMC into a GIE without informing any of the senior women or the project promoters. The problem, however, was that a GIE is in essence a private organization; it cannot be presented as an inclusive forum as originally envisaged by the FRMC. Therefore, the young men began positioning the FRMC young men's GIE as a formalized and legitimate interlocutor in the project. Worse, they determined a set of economic activities in which to invest their share of the financial returns from the Local Convention that the project aimed to set up.

Young FRMC men began discriminating against senior women in favour of young women with whom they allied in relation to the distribution of the fruits they harvested for sale and processing. Senior women discovered all that was being done by young men and young women to exclude them from both access to *to'oy* and the processing thereof. They ended up revealing this publicly and intensifying their resistance to the circumvention of the FRMC's initial aim. Thus, the project initiative of supporting the elaboration of a Local Convention for equity about access and benefits could no longer occur in the timeline of the project itself as the management of natural resources became more than ever complex. Consequently, the project decided to work with the two other villages where the dynamics were less complex. The next section discusses the results and draws implications for the environmentality concept and development interventions. It ends with several recommendations.

Conclusion and Discussions

The case studied in this chapter has shown that young men, despite the fact that they have never been involved in development interventions, formulated very sophisticated ideologies to craft new rules about access to natural resources to manipulate

women who participated in any projects in the area and instrumentalized the project. The ecological, humanistic and the religious discourses, as well as the idealization of collective interest, were instruments fabricated to legitimate the re-making of environmental rules and organizations to control access to resources and projects intervening in the sector. The collectivization initiative ended up by creating gender exclusion. It increased gender-based conflicts about access and processing of *detarium senegalensis*, but also privatization. The reputation of women in Dionewar as hard workers shifted from being a social construct to becoming the result of a changing (environmental) context offering new benefit flows.

In rural areas, development projects create new institutions or make institutional choices based on logics of local participation in their initiatives. However, these ways of operating distribute or redistribute important resources and affect the positions of actors and groups in socio-political and economical structures. The creation or empowerment of an organization provides power and privileges to its members. Such power and privileges contribute to the making of authorities in a social setting (Ribot 2007a, b; Ribot et al. 2008).

So, participation does not necessarily produce positive and progressive outcomes in the areas of interventions of projects – be they governmental or civil-society based. Caruso (2011) showed how co-management was used by some powerful actors to reshape power relations and to find spaces for domination. Mawdsley (2009) found similar negative results about Delhi's Bhagidari scheme in India, where the emerging environmental concerns amongst the middle classes were not necessarily ecologically effective or socially progressive. Further, Mawdsley (2009: 249) said:

> Even in Kumaon, participatory governance (and here specifically in terms of resource management) has not always been environmentally effective or socially just, never mind other parts of India more driven by caste, class, religious and gender divides. In urban India, class may increasingly be fracturing society not just along economic and cultural lines, but also in terms of representation and voice within the changing paradigms of governance. Long-standing inequalities are being amplified and re-articulated by the new dispensation associated with the participatory governance paradigm.

The material foundations of project interventions influence the distribution of the stakes about resource management and the re-positioning of groups of actors in time and space. The reasons and the way the FRMC was converted into a private organization, although aimed originally at collective interest, is proof of that. To understand the complexities of the actors' actions and stakes in relation to natural resource management, especially in the presence of projects, action-research programmes could draw valuable benefits from constant mutual exchanges of ideas and practices all the way along the intervention. Action research cannot operate well if restricted in the form of one institution or team dedicated to research and another creating development strategies and running them on the ground. The conducting of ground activities during the development stage produces more insightful information that needs to be taken into account in the on-going approach and to be reflected in new intervention strategies. Therefore, longer interventions that articulate actions and research are required to make equity happen in local natural resource governance.

Short-line interventions usually draw on rapid rural appraisals that cannot grasp the complex continuous dynamics of rural areas, especially in material-based projects.

In dryland regions, because of the scarcity of resources, the rare existing wetland forests, (like islands in the case studied here) are very attractive for development or environmental projects. Such project interventions bring with them new opportunities through economic valuation of resources but also arguments that existing actors can use to promote their own interests, excluding vulnerable social categories, like senior women in this case. Equity is the most important achievement that an intervention can have in the area of natural resource management or conservation. However, it is procedural; it takes time and resources, and requires back and forward movements between research and development activities, provided that the project's timeline allows for this. If the goal of projects is to achieve justice and well-being for local people, especially in rural areas, then expending resources and time in procedural issues would be more valuable than achieving concrete outcomes that could profit some powerful actors while reversing previous social relations, particularly gender relations.

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