

Democracy and the social organisation of capitalist production: mangrove conservation in Senegal

Rocío Hiraldo

PhD candidate Univ. of East Anglia/Univ. of Copenhagen

E-mail: R.Hiraldo@uea.ac.uk

Democracy and the social organisation of capitalist production: mangrove conservation in Senegal

Abstract

Carbon markets are expanding through the implementation of reforestation campaigns implemented by members of rural communities in low-income countries. While some scholars promote these interventions as locally beneficial, others are questioning such promises. This paper analyses how a mangrove reforestation carbon offsetting project implemented in the Sine-Saloum delta region of Senegal has shaped democracy at the local level. Institutional agents' decisions are fundamental to understand the democracy effects of these interventions. Before and after the intervention institutional agents working on conservation (with support of state actors) maintain their ability to extract profit from mangrove conservation by perpetuating a division of labor around such production, thus: a) preventing most villagers from having voice and control over decisions that affect their lives; b) recognizing them only instrumentally (as labor-power); c) transferring economic and decision-making powers to local partners who act in similar ways with and d) reinforcing their power through inter-institutional coalitions. By doing so, they erode democracy while gaining economic and political power in conservation. Villagers' struggles to democratize mangrove conservation challenge this division of labor but only partially as high-level institutions resist a total control by villagers over decisions about conservation, inter alia, their control of the means of production in conservation. Struggles for and against democracy can help map the expansion of capitalism through environmental conservation.

Table of contents

Introduction.....	4
Capitalism and democracy in the community forestry literature	6
Fieldwork setting and case study.....	9
Research methodology.....	11
The making and survival of a non-democratic protected wetland.....	11
Shaping democracy while building hegemonic power in conservation.....	18
References.....	21
Acknowledgements	26

Tables

Table 1: Villagers' knowledge of institutions involved in the management of Bamboung protected wetland	15
---	-----------

Annexes

Annex: Open-ended questionnaires for villagers.....	26
--	-----------

**Democracy and the social organisation of capitalist production:
mangrove conservation in Senegal**

Introduction

When I first met Abdou¹ at the Independence square in Dakar I saw a tall and very thin man. I said to myself, 'it's good that there are people like him who may not have many resources but still fight for the wellbeing of their people'. After asking him about the carbon project I wanted to study and about his NGO, which was running the project, he agreed to be my host for a week during my first visit to his village. Two months after I arrived to Niombato. His house did not look like that of a poor Senegalese family. There were two televisions, a fridge and they had hired a domestic worker. I had not seen many houses in rural Senegal yet so it was not until my second night that I realized that my first impression of Abdou was not accurate at all. I was invited to attend a Senegalese wrestling match. I enjoy watching them, so I accepted the invitation. The organizer of the event started giving a brief speech and then called to the arena several military men all wearing their honorary badges and with them came Abdou, wearing a boubou made of what looked like an expensive fabric. They were presented as important personalities in the village. The griots² started singing and several women stood up and gave them notes. Among them there was Abdou's wife, also wearing a beautiful and costly boubou.

The next day I began conducting informal interviews in the area. I knew that the carbon offsetting project was implemented by the same organization that had created a community-based protected wetland nine years previously, and I therefore started my research by analyzing the genesis and evolution of this nature sanctuary. My first interviewee was Abdou's brother in law, who had been running the only ecotourism hostel in the protected wetland. He said that the protected wetland had brought benefit to the local communities, such as a microcredit local women's group that he led but that no longer exists. According to him, problems were now arising as the local government had tried to appropriate the ecotourism hostel within the protected wetland. He said that 'the protected wetland was not their business' emphasizing donors disagreed with local government measures. That same day I went to another village to visit one of the members of the local government. His village did not have electricity yet and we ended our conversation in the dark. His account of the story was different to the one I had heard from Abdou's brother. The community-based protected area had rarely benefitted villagers; only one family was benefitting from the resources generated (Abdou's family). During the following months in the area I came to know that the protected wetland had a history of violence and domination where Abdou and his NGO, together with other institutions, were managing the protected wetland to their own interests neglecting other villagers' needs and views.

Inequalities in decision-making processes within community-based forestry interventions are not new phenomena in Senegal. These projects have often failed to improve the living

¹ I have changed the name of the person here described to protect his identity.

² Griots are musicians and singers considered as repositories maybe change word? of the history of a region and whose presence is common within traditional rituals in West African countries (Suso et al., 1996).

conditions of rural people, not only due to the local politics but more importantly, due to the international political economic context in which they have taken place. Local ability to decide over forest management has been resisted by high-level institutions leading community-based forestry interventions such as the World Bank (Utting and Jaubert, 1998; Ribot, 1999). Allied with state bureaucracies and charcoal merchants, these institutions disabled local governments and villagers to exercise power through a wide range of forms of domination (Ribot, 2009; Poteete and Ribot, 2011). In Senegal, the dominance of the Washington Consensus in national economic and political affairs has led since independence to an increasing rollback of the state in favour of powerful capitalist actors, especially the French private sector (Diouf, 2007). In 2009, a group of French companies, together with the United Nations Environmental Programme (UNEP) initiated a multi-country forestry-related carbon offsetting programme called CASCADE³ that allows French companies to offset their emissions through community-based forestry projects in 7 former French colonies in West Africa (UNEP, 2012). Villagers are paid to store carbon through reforestation and forest restoration, hence allowing these companies to earn certified emission reductions (carbon credits) that can be traded and sold in global carbon markets (Yamin and Depledge, 2004).

The expansion of carbon markets through community-based forestry projects in poor parts of the world has generated an active academic and policy debate that can be divided in three main strands of literature. Under a first approach, forestry-related climate change mitigation interventions are seen as locally beneficial when institutional capacity and well-designed social safeguards are in place (Vatn and Algenesen, 2009; Cortez et al., 2010). Authors in a second strand of the literature are not skeptical, but argue that if the rights of forest dwellers are not protected in practice, forestry-related climate change mitigation interventions are unlikely to bring local benefits (Larson and Ram Dahal, 2012; Duchelle et al., in press; Sunderlin et al., in press). Others go further and argue that institutions promoting these interventions remain neutral towards existing inequalities and therefore a radical change needs to take place where democracy becomes the main driver of these interventions (Ribot 2011; Marino and Ribot, 2012). A third strand of the literature problematises the inherent principle of forest carbon markets, capitalism (Brockington et al., 2008; Sullivan, 2010; Büscher et al., 2011). Forestry-related carbon projects are part of territorialization processes, where state and non-state actors convert to profit particular areas under the name of conservation (Corson, 2011; Kelly, 2011). Thus, the effects of these interventions, including dispossession and physical violence at the local level, are driven by the pursuit of economic profit (Heynen et al., 2007; Benjaminsen and Bryceson, 2012). In line with authors in the second and third strand of the literature, this paper is concerned with the relationship between democracy and capitalism in the context of environmental conservation. The paper analyses the democracy effects of a mangrove reforestation carbon offsetting project part of the CASCADE program that has been implemented in the Sine-Saloum region of Senegal from 2009 to 2011.

³ In French CASCADE stands for Carbon Finance for Agriculture, Silviculture, Conservation and Action Against Deforestation (UNEP, 2012).

Democracy is defined here as a relational and contested process towards social justice (meaning emancipation from domination and ability to create new forms of society) (Springer, 2007; Kioupkiolis, 2010) that has material, political and social foundations as well as implications (Poteete and Ribot, 2011). In the context of mangrove conservation democracy is analysed here as shaped by a) villagers' ability to decide over the material, political and social realms of their lives and b) powerful actors' responses to villagers' attempts to change the rules these actors have created and c) the means through which decisions are taken (i.e.: violence) (Springer, 2007). The timeline to look at these changes goes from the creation of Bambang protected wetland in 2003 until the end of the carbon offsetting project in 2011. While gender relations are a crucial aspect of democracy (Fraser, 2007) and the production of capital (Bernstein, 2010), this paper focuses its analysis of these struggles around the material basis of democracy (meaning the negotiation around livelihoods, income and capital). This choice is related to the fact that in the context studied divisions around this material basis have surpassed gender divisions.

Capitalism refers here to a social organization around the production of a commodity founded on the imperative of accumulation and the social relation between capital and labor (Bernstein, 2010:25-27). Democracy and capitalism are seen here as opposing forces (Wood, 1995; Springer, 2007). Conservation-related capitalism refers here to the social organization around the production of commodities through environmental conservation (whether carbon or the protection of nature more generally). Marx (1993) argued the social organization of commodity production in capitalism entailed the emergence of three classes: capitalists (who control the production process and appropriate the economic profit generated through it), landowners (who provide legal support) and producers (who provide the capitalists with labor-power). Following this, the democracy effects of the carbon offsetting project are analyzed in the context of such organization of production. Conservation NGOs and other officially non-profit institutions are increasingly being recognized as capitalists as they accumulate profit and seek to expand their ability to obtain profit through conservation (Igoe and Croucher, 2007; MacDonald, 2008; Brockington and Scholfield, 2011). In this paper actors' roles in commodity production through conservation are not imposed by the author, rather they are seen as emerging in practice.

The reproduction of democratic deficits through the carbon offsetting project studied are part of a longer history where a conservation NGO (with the legal support of state actors) has attempted to maintain its ability to extract profit from mangrove conservation by a) choosing to prevent villagers from having control over decisions that affect their lives; b) by relating to them in instrumental ways (as labor-power) while concentrating all profits generated through conservation and c) by reinforcing their power through partnerships with private actors who extract profit in similar ways. By doing so, they gain economic and political power while blocking democratization. During the carbon offsetting project these actors accumulate profit by appropriating villagers' labor-power while mobilizing it under a different name. At the local level the relations of conservation-related capitalist production are effectively challenged by villagers but only when they denounce abuses. High-level institutions remain unknown and inaccessible to villagers hence maintaining their power. The de-democratization of

conservation and the social organization of capitalist production in conservation are hence mutually constituted.

The next section reviews the literature on community forestry, capitalism and democracy. The following two sections introduce the fieldwork setting and the research methods used. The history of mangrove conservation in the area studied before and after the carbon offsetting project is then presented. The last section concludes.

Capitalism and democracy in the community forestry literature

As institutions push for the expansion of carbon markets (Reyes, 2011) the promise that forestry-related climate change mitigation projects will improve local wellbeing is being called into question. To do so, authors in the second strand of the literature above mentioned focus on the relationship between forestry management and democracy while those in the third one analyze the expansion of capitalism through environmental conservation. While in the former capitalism does not take a main role in forestry management and in the latter democracy is not the main focus of analysis, both bodies of theory are concerned with forestry as an arena through which power is constituted.

Forestry resources are both a source of subsistence and income for villagers and a source of wealth for powerful actors (Ribot et al., 2008). Negotiation around them constitutes political power and shapes democracy. Community-based forestry and forestry decentralization promise to improve the material basis of democracy by increasing people's ability to control the resources they depend on for their income and livelihoods, yet its practice it is far from achieving its promise (Vandergeest and Peluso, 1995; Leach et al. 1999; Ribot and Peluso, 2003; Ribot and Oyono, 2006; Ribot et al., 2008). In Senegal and elsewhere, state and non-state actors with economic and political interests at the local level, block the expansion of democracy, often by preventing local governments from exercising power (Pacheco and Kaimowitz, 1998; Ribot, 1999). Some authors argue that even when local governments are empowered, villagers remain marginalized and misappropriation of resources prevails (Bandiaky, 2008; Brockington 2008). Attempts to block democracy only represent intentions as their effects depend on a larger set of social, economic and political relations. Local resistance may counteract the potential effects of domination (Poteete and Ribot, 2011) while external recognition may reinforce domination. When institutional agents leading community-based forestry projects choose local partners that do not represent local interests and transfer them with economic and decision-making powers (recognition) they are likely to prevent democratization (Mongbo, 2008; Ribot et al., 2008). These agents may also block democratization by choosing not to create accountability mechanisms through which people can influence forestry-related decisions (Ribot et al., 2008).

Another body of literature sees domination in environmental conservation as driven by capital accumulation and as a way through which private companies, conservation NGOs, international development agencies, private (officially) non-for-profit foundation reproduce not only their economic power, but also their political power (McCarthy and Prudham, 2004;

Igoe and Croucher, 2007; Brockington et al., 2008; Büscher et al., 2011; Igoe et al., 2011; Duffy, 2012). Forms of domination to maintain such access to capital are various and may include evictions (Brockington and Igoe, 2006), lack of transparency (Igoe and Croucher, 2007), physical violence (Benjaminsen and Bryceson, 2012), territorialization (Corson, 2011), restriction of access to natural resources (Fairhead et al., 2012), the use of degradation and vulnerability narratives (Beymer-Farris and Bassett, 2012; Farbotko and Lazrus, 2012), manufactured success (Igoe et al., 2011) and the use of expert knowledge (Bäckstrand and Lövbrand, 2006). The relations between capitalists and producers in conservation relation takes place not only through some of the forms of domination above considered, but also through forms of resistance that in turn counter the expansion of capital through conservation (Wilshusen, 2011; Beymer-Farris and Bassett, 2012).

Marx (1993) argued that all production refers to the appropriation of nature through a specific form of society. The social organization of commodities in capitalist production, he argued, entailed the emergence of three classes (capitalists, landowners and producers). In the literature on capitalism and conservation the capitalists include a wide range of institutions, not only private companies but also conservation NGOs, private foundations and international development institutions seeking to produce capital through conservation. These institutions are also considered as capitalists in that they use conservation as a way to expand their power. To maintain their power they partner among themselves and states (landowners, for Marx) as purveyors of sovereignty in exchange for technical capacity and funds (Igoe et al., 2011). The role of producers have however been less considered.

For Marx (1976), capitalist production could not be understood without the appropriation of human labor-power (people's time, intelligence and effort) by the capitalist. This is because in capitalism individuals earn economic profit without producing themselves the commodities they sell. In the context of capitalism and conservation, the relationship between capitalists and producers has been less explored. Most of the literature on environmental conservation agrees that accumulation through conservation, as most capitalist production in the context of neoliberalism (Harvey, 2005), generally takes place through exclusion of individuals. For example, Brockington and Duffy (2011:12) argue that 'if there is a conservation proletariat then it is a tiny group of eager volunteers sacrificing time or underpaid staff foregoing better salaries elsewhere to serve a cause'. Thus, the sources of accumulation in conservation-related capitalism include accumulation by dispossession through the creation of protected areas (Igoe et al., 2010; Corson, 2011; Kelly, 2011), offsetting of local and regional ecological transformations (Sullivan, 2010; Bumpus and Liverman, 2011; Büscher et al., 2011), funds for conservation (Igoe and Croucher, 2007; Brockington et al., 2008; Brockington and Scholfield, 2010; Igoe et al., 2011) and exploitation of animal labor-power (Duffy, 2012).

Fieldwork setting and case study

The villages where fieldwork has been conducted, Sourou, Dassilame Serere and Bani, are part of Niombato, a group of 14 villages located in the Sine-saloum Delta region of Senegal, 24

kilometers from the border with Gambia. The three villages are lined up and located between the mangrove forest and agricultural lands. Both ecosystems constitute the main source of livelihoods for all families whose members have been interviewed. For some of these families, fishing, mollusc collection and farming also contribute to their household income. The environment thus plays a key role regulating the lives of villagers in the area studied. Population size in each of the three villages is small with less than 300 inhabitants. In Dassilame Serere electricity was installed during fieldwork period and in Bani and Sourou it was only installed a year before the research was conducted. Nevertheless, few families have access to electricity within the household. Most families rely on village wells to access running and drinking water. The three villages are 3 kilometres away from Toubacouta, the administrative center for the 14 villages in Niombato and 38 other villages. A sub-prefecture and decentralized offices of the National Parks service and of the National Forestry service are also located in Toubacouta. Abdou, the local partner of the NGO leading the community-based protected wetland and the local implementation of the carbon offsetting studied, lives in the village of Soucoute, 5 kilometers away from the three villages where fieldwork has been conducted.

Mangroves in Niombato are not only important for local communities, but also for a wide range of national as well as international actors. The Sine-Saloum Delta is today recognized as a biodiversity hotspot and it was built in a National Park in 1976 and then a Unesco Biosphere Reserve in 1981. It is also site of international importance since 1984 by the Ramsar convention and more recently in June 2011 it was listed on the World Heritage List of Unesco (Spalding et al., 2010). Since then a large number of development and environmental organizations have been operating in Niombato. Moreover, the local government, which became entitled to manage natural sites of local interests, to create protected areas and to elaborate and implement local environmental management plans through the 1996 decentralization reforms (RdS, 1996) has created a new department specialized in environmental conservation. Ecotourism is also developing in the area and new small hostels and handcraft markets can be found in Toubacouta. However, none of these infrastructures can be found in the villages studied, except a small ecotourism hostel in the surroundings of Dassilame Serere. With global recognition on the role of mangroves on climate change adaptation, community-based mangrove reforestation campaigns have become common in the Sine-saloum Delta (UNESCO, 2012). More recently, mangroves have been recognized as the most profitable and cost-effective coastal ecosystem given their great mitigation potential (Twilley et al., 1992). Senegal is said to be the country with the lowest costs for producing carbon credits through mangrove conservation. At a carbon price of \$15/t CO₂e the average gross returns could be over \$13,000 per reforested hectare (Murray et al., 2011).

The project studied here is a Clean Development Mechanism (CDM) project. CDM is a global mechanism created under the United Nations Framework Convention on Climate Change (UNFCCC) that allows private companies and national governments from Annex I countries to offset their emissions and exchange them for carbon credits generated through the

implementation of reforestation and afforestation⁴ activities (UNFCCC, 1997). The CASCADE programme is coordinated by UNEP and enables French companies to implement CDM projects in former Francophone West Africa. The intervention here studied is a pilot experience through which the Danone fund for Nature (formed by Danone, the Ramsar Convention and the International Union for the Convention of Nature (IUCN)) seeks to gain insights for developing and investing in new carbon projects in Africa and elsewhere (Ramsar Convention, 2010). Orbeo, a carbon investment company, has also participated in the project.

The project consisted on 2 or 3 days of paid mangrove reforestation campaigns during each month of the rainy season. Villagers were paid 1.5 euros per worked day. The intervention was financed by Danone and implemented by Oceanium, a conservation NGO based in Dakar. Oceanium's leader Ali Haidar is a Lebanese environmentalist grown up in Senegal who became popular for his awareness-raising campaigns for local communities who, he argued, needed to be assisted in the protection of nature⁵. In 2002 Oceanium initiated the creation of a protected wetland in Niombato called Bamboung⁶. Funding was provided by the French Development Agency (AFD) through the French Global Environmental Fund. Since 2008, the International Foundation for the Arguin Bank (FIBA) has supported the French Development Agency by providing technical support to Oceanium. Today AFD continues to provide funding for the community-based protected wetland but revenues are also generated through tourist visits and a small hostel in the island where Bamboung is located.

At their arrival to Abdou's house, the reception of the protected wetland, tourists pay a ticket and then a boat takes them to the island where the protected wetland is located. The main objective of the protected wetland was to preserve the *bolongs*⁷ where biodiversity is important (Albaret et al., 2005). This was achieved by banning natural resource extractive activities in a surface of 7000 hectares. This surface is surveyed by villagers employed as security guards by the local manager of the protected wetland, Abdou's brother-in-law, and by the local official of the National Parks service, although the latter does not generally exercise this role.

Research methodology

The democracy effects of the mangrove reforestation carbon offsetting project have been contextualised within relations around the management of Bamboung protected wetland. In this context, democracy is said to be influenced a) villagers' ability to decide over the

⁴ Reforestation refers to the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but has been converted to non-forested land. Afforestation refers to the direct, human-induced conversion of non-forest land to permanent forested land for a period of at least 50 years (UNFCCC, 2012).

⁵ Ali Haidar, available at <http://www.youtube.com/watch?v=x0rtflgmHk8>

⁶ Reforestation campaigns for the carbon offsetting project have been implemented in the buffer zone of Bamboung protected wetland.

⁷ A diffuse network of channels formed by mangroves.

material, political and social realms of their lives and b) powerful actors' responses to villagers' attempts to change the rules these actors have created and c) the means through which decisions are taken (i.e.: violence) (Springer, 2007). Following Poteete and Ribot (2011) acts of domination have been mapped by looking at routine claiming-making coercive as well as non-coercive actions that are available to actors working on mangrove conservation in Niombato as they seek to gain, expand or defend positions of dominance at the local level. Acts of resistance have been mapped by looking to villagers' actions against domination by institutional agents on mangrove conservation.

Primary data have been collected in Niombato during different fieldwork periods between April and mid September 2012. In April I was based in the village of Soucouta for a ten-day-preliminary mapping of institutions and actors involved in the intervention studied. During the rest of fieldwork research I have been based in Sourou where I built relations of trust with villagers in Sourou, Bani and Dassilame Serere. To map the processes of domination and resistance around mangrove conservation semi-structured interviews have been conducted to affected villagers in Sourou, Bani and Dassilame Serere, rural councilors, institutional agents involved in the management of the protected wetland of Bamboung and in the carbon offsetting-project. In addition, individual open-ended questionnaires were conducted to 60 adult villagers in four villages in Niombato (Sourou, Dassilame Serere, Bani and Sipo⁸). These questionnaires were aimed to analyse the degree to which villagers have been affected by the protected wetland, their knowledge and opinion of institutions and actors managing the mangrove conservation and their access to information about decisions concerning mangrove conservation and the carbon offsetting project.

The making and survival of a non-democratic protected wetland

The promises and practice of community-based mangrove conservation

In October 2002 the NGO Oceanium presented the project to create a community-based protected wetland to the local government, the sub-prefect, the regional prefect and the presidents of several community-based organizations. The idea was well-received and 20 out of 20 members of the local government attending the meeting voted for the creation of this new space. This election resulted in the approval of the creation of a protected wetland of 6800 hectares of surface, the allocation of 20 million F CFA (40.603,27 US dollars) to the construction of the small hostel and the management of tourism activities. It was stated that in order to be satisfactory, the management of the protected wetland would be participatory (Communauté Rurale de Toubacouta, 2002).

Several months later a decree was passed confirming the creation of the community-based protected area. The text approved the creation of a management committee for the protected wetland (RdS, 2003a, Article 1), which was granted with important responsibilities and rights

⁸ Sipo is a small village located in an island in front of Bamboung protected wetland. Fieldwork was not conducted in Sipo but villagers from Sipo participated in the open-ended questionnaires.

such as the ability to collect an entry tax for tourists visiting the protected wetland and to allow certain motorized boats to enter the protected wetland (RdS, 2003a, article 9). However, the members of the committee were not specified in the text and were finally chosen by Abdou, who was appointed by Oceanium managers as the president of the committee. Chiefs from the 14 villages in Niombato, several fishermen and representatives of community-based associations were formally the main members of this group but in practice neither village chiefs nor fishermen frequented the meetings⁹.

The decree approved a one-year-ban on natural resource extractive activities within the limits of the protected wetland. After this period the conditions of access would be fixed again (RdS, 2003a, Article 10). Since the protected wetland was community-based, these conditions would be decided collectively by the local government, the National Parks service, community-based organizations, a group of scientific experts and a new participatory management committee would all collaborate in the creation of a 'community-based, participatory and integrated management plan' (RdS, 2003, Article 9). However, in practice the local government was not involved in the management plans for the protected wetland. Based on my discussions with villagers and rural councilors the president of the local government at the time the protected wetland was created had received payoffs by Oceanium and was recently threatened of detention by the policy for misappropriation of resources. In addition to this, the local government was never involved as an institution, rather Oceanium agents chose individuals within it who finally were not even allowed to participate:

They [Oceanium] just wanted our signature. We were ready to participate, but we were not involved financially...once Jean [the French co-manager of Oceanium] told me 'you are a good communicator' and he suggested I would lead the awareness-raising activities with local populations, but I think that created a problem in the group [Oceanium] and it never happened. Jean wanted the local government to collaborate with the group, but the group didn't want to do so (Abdou Diouf, former local councilor, July 2012).

The awareness-raising activities for conservation started, but villagers were not told the ban would be permanent but that it would last less than one year. 100% of the interviewees said they were not aware the ban on natural resource extractive activities would be permanent. The permanent closure of the Bamboung *bolong* has had negative consequences for local populations in the Niombato. Today all fishermen from the villages studied concentrate their activities in one *bolong* which is today overexploited. The Bamboung *bolong*, where predators have increased (Albaret et al., 2005) now concentrate all large size fishes whereas villagers can only fish today small and medium size fishes. Villagers have noted that not only on their livelihoods but also on their income. The questionnaires conducted to villagers indicate that fish has become more expensive and fishermen families have less quantity to sell than before. None of the interviewees suggested there was an institution helping them to cover these costs and therefore most families have continued to rely on farming and declining fish resources as their main sources of revenues.

⁹Based on conversations with local fishermen who participated during the first meetings.

In addition to the loss of access to natural resources, the protected wetland generated little economic opportunities for villagers. Abdou's close relatives were employed and given posts of responsibility in the protected wetland. His brother-in-law became the manager of the ecotourism hostel, his brother recently became the main responsible for the management of touristic activities, his wife the main provider of food for the hostel and his son the manager of the restaurant. 58.33% of interviewees identified Abdou, his village or Oceanium as the main beneficiary of the protected wetland while 25% of them identified the employees of the protected area. 88% of villagers interviewed identified their own village as the most affected place and only 3% of the interviewees identified their own village as the main beneficiary of the protected area.

Masking democratic deficits: manufacturing success

Villagers' disagreement with decisions led by Oceanium has not become public beyond the local level. In an event taking place in 2007 Jean Goepf, former Oceanium co-manager, described as follows the management of Bamboung:

'This protected wetland is today an international example, it was born thanks to a participatory process that has lasted for years. Oceanium has taken into account cultures, local traditions, everyday realities of local villagers and it has associated different partners. This process has resulted in the appropriation of the protected wetland by local communities'.

Baviskar (2004) calls attention to the need to take a closer look of the so-called successes of grassroots organizations that claim to be representative of local interests while Igoe and others (2011) argue that the manufacture of success is a form to generate capital that circulates well beyond the scope of conservation interventions. The successful image Oceanium portrays about its community-based approach to environmental conservation has been particularly effective with regards to domination. Indeed, Oceanium co-manager Ali Haidar became popular in Senegal for his participatory approach to environmental conservation and was appointed Minister of the Environment of the new Senegalese government after the last general elections in 2012. In addition, it also helped it gain legitimacy in the face of donors. In the first interview I did to one of the project managers at FIBA, he suggested that in Niombato only Abdou would care about the environment (Julien Semelin, pers. comm., April, 2012).

Choosing distance and disengagement: institutional responses to villagers' resistance

In July 2004, after the end of the ban period the decree had started, three men from one of the surrounding villages went fishing to the protected wetland:

'An armed man found us in Sipo [the island in front of the protected wetland]. He shot in the air and said that if we ran he would shoot on us. He had a rope that he wanted to use to tie us up. I said I wasn't a slave and then he hit me with his weapon. They [Oceanium] took a lawyer to defend themselves but we are poor and do not have money

for that. The co-manager of Oceanium [Ali Haidar] came to our village to say sorry together with his lawyer and an agent from the National Parks service. The lawyer said that in fact it was not the Direction of National Parks who arrested us, but the local government. He also said that if we would do it again we would spend six months in prison (Sadibou Demba, July, 2012)‘.

As a response to this and the ban, villagers went to visit different local authorities (including the local government, the sub-prefect and the local official of the National Fisheries service) with a petition signed by around 500 villagers to say they wanted to continue fishing and mollusk collection in the *bolong*. One fisherman who participated in the management committee asked Abdou and one of the co-managers of Oceanium why there were no state representatives in the management committee and their answer was that ‘if one day we wanted to end the fishing ban it will be easier if state institutions are absent’. In one of the meetings of the participatory management committee, this fisherman and another one argued that they disagreed with the idea of not giving a specific date for the end of the ban. Since then, they were no longer invited to the meetings of the committee¹⁰.

While they attempted to find support from state institutions, local officials did little to support them. They established distant and shallow relationships with villagers and in turn chose to respond to the mandates of the bureaucracies they belong to. As in colonial times (Klein, 1968; Quinn, 1972; Ribot, 2002), accountability relations around the management of the protected wetland work only upwards. Describing the relationship of the National Parks service with local populations one of the villagers said:

They [the National Parks service] were never present, we have never seen them...we need them to regulate and to back us... we need them to be with us for our security...they never had meetings with people and should do things for citizens. For us they are not our enemies, but they have become so...¹¹, they should be there for the population and not only for the project (Fode Diame, June, 2012).

The current official of the National Parks service located in Toubacouta, when asked whether he had organized meetings with villagers he responded he need not to do so. The former official of the National Parks service in Toubacouta described his role as follows:

‘To perform I had to consult my superiors because, as you know, the Direction of National Parks is a militarized corps, so the hierarchical relationships are very very important there. We obey our superiors and we do not do anything without informing our superiors, it is the military command. So we, everything we used to do was to render an account to our superiors and we would not do anything without their approval...we are allocated somewhere else so we do not get too familiar with the local population, that’s the

¹⁰ Discussions with Fode Diame, June-July, August-September 2012.

¹¹ The interviewee suggested that the former director of the National Parks service in Toubacouta had kept part of the 20 million invested for Bamboing. The director of the National Parks service was also the one who arrested the three fishermen in Sipo.

management approach, they allocate us so there is not too much connivance between the population and us' (local official, August, 2012).

Being accessible to citizens is crucial to improve downwards accountability. When intervening agents remain distant, it is difficult for citizens to influence them (Ribot et al., 2008). Table 1 provides evidence of villagers' knowledge about the existence of institutions involved in the management of the protected wetland. Villagers' lack of knowledge of the French development agency and FIBA are particularly high, yet these agencies have been supervising Oceanium and its decisions about the management of the protected area since 2002 and 2008 respectively.

Institutions	Percentage of villagers aware of the existence of each institution (n=60)
Central government	100%
Local government	95%
Village chief	100%
Oceanium	98%
Direction of National Parks	38%
FIBA	3%
French Development Agency	8%

Table1. Villagers' knowledge of institutions involved in the management of Bamboung protected wetland

Finding labor-power for carbon credit production

Five years after the creation of Bamboung, Oceanium still had control over the management of the protected wetland. That year, the French company Danone contacted Oceanium to discuss the carbon offsetting project. Danone provided Oceanium with 3 million euros to implement reforestation campaigns in 200 villages in the Sine Saloum delta and in the Casamance region in the South of Senegal where Oceanium also works. In 2009 reforestation campaigns started in Niombato (UNFCCC, 2010). By being recognized with the ability to control project and money decisions, Oceanium and Abdou reproduced their economic and political power in mangrove conservation in Niombato. Abdou led the reforestation campaigns in the area. He contacted village members, told them the number of hectares they had to plant, oversaw reforestation campaigns and provided payments in each of the targeted villages but, unlike other villagers, did not plant trees.

Oceanium and Danone attempted to avoid villagers' appropriation of the production process by not providing information of the carbon credit objective. 100% of villagers who were

interviewed did not know Danone would make profit through the reforestation campaigns they were doing. This contrasts with UNFCCC project documents where it is stated:

‘44 % of people interviewed think that the reason why Danone finances the project is related to carbon credits or the reduction of the pollution emitted by their factories; 28 % think that Danone finances climate change mitigation. The local populations realize that Danone can benefit from this project because it is a profitable project for the population and for the backer’ (UNFCCC, 2010).

Although the profit objective has been stated, the need of labor-power for the production of carbon credits has been masked in project documents where the objective of participation is ‘to change the approach and behavior of local populations towards the sustainable management of mangrove areas’.

Partnerships and the expansion of carbon markets

Transnational corporations and financial institutions rely on partnerships with state institutions for their performance (Igoe and Brockington, 2007; Brockington and Scholfield, 2011; Igoe et al., 2011). The appropriation of Danone of carbon credits was not enabled by Danone itself and its appropriation of villagers’ labor-power, but also by the wide range of institutions that supported such appropriation. The Senegalese central government accepted Danone’s project in Senegal and encouraged the exclusion of the local government and villagers in carbon credit production:

“the Senegalese Climate Change Committee [part of the central government], in its meeting purely dedicated to the review of the Oceanium mangrove restoration project and dated May 12, 2010, clearly asked the Orbeo representative, who presented the Project Design Document, for getting such an approval from any Communauté Rurale [local government] benefiting from project activities. Based on that, Oceanium entered into specific discussions with each Communauté Rurale with an interest in obtaining such a green light. An agreement duly signed by both parties specifies the undertakings of each party while securing the transfer of the Emission Reductions to Oceanium”.

To be able to own carbon credits, CDM projects require validation by the UNFCCC (Yamin and Depledge, 2004). Relying on what they argue are environmental and social coherence standards, the UNFCCC validated Danone carbon offsetting project in Senegal (Livelihoods, 2012). This decision has important material, political and social implications as it enables Danone to profit from a commodity it has not produced, but rather villagers have produced for Danone. This lack of recognition of villagers’ labor-power is a symbol of the institutional cultures where carbon offsetting projects are being validated. Institutional cultures where villagers rather than being citizens, are treated as labor-power. In addition, as this intervention was pilot, its validation is the key for the expansion of capitalism through carbon storage. The Livelihoods fund, a joint initiative by Danone and other private companies seeking to invest in

carbon markets, is increasing in members and economic capacity with new European corporations joining the fund (Livelihoods, 2013).

A new local government and the effects of workers' resistance

In 2012 resistance by staff working in the ecotourism hostel in the protected wetland against the unequal distribution of the economic resources initiated became increasingly public. The employees created an organization and wrote a letter to call for improved transparency and the end of privatization of common resources. On not receiving responses from other institutions and seeing the large amount of money coming in the Bamboung ecotourism hostel and then often disappearing, one day two members of the staff took a large sum of money from the till and threatened the managers, pressing for improvements in its distribution. These two members of the staff were finally fired by Abdou with authorization from the local sub-prefecture. As Igoe and others (2011) suggest, domination around conservation is largely dependent on partnerships that provide non-governmental actors with sovereignty and governmental actors with other resources.

In 2009 a new local government came to power. Their attempts to participate in the management of the protected wetland converged with workers' resistance. The current local councilor responsible of the environment gave a brief account of how this happened:

'I will tell you how they started involving us in their decisions. We started getting in contact with all the different ecotourism hostels within the local community, but we didn't go to the Bamboung hostel. We did this deliberately. One day, they had a general assembly in Soucouda¹² to discuss about the management of the hostel. Abdou was upset that the rural councilor had not been to visit him and he invited the local government to that meeting. We went there, sat and heard the meeting, yet they had internal problems that they talked about in front of us, problems between the people who work there and the managers. The young employees revolted in front of us at the meeting and talked about the problems that were there, about the 'bad management', the low salaries, they argued that only one family was leading Bamboung [Abdo's family]'.

Whether the local government was seeking to be responsive to villagers or just appropriate the protected wetland, its presence at the meeting was an opportunity for villagers employed in the protected wetland to voice their claims. That moment triggered key changes in the management of the protected wetland. In the coming months one of FIBA project managers visited Niombato and a local councilor spoke with her about the problems concerning the management of the protected wetland. After that conversation FIBA sent a legal expert to the field to analyze the management of the protected area as well as its local socio-economic effects. The consultant, who did his research while I was in Niombato, confirmed the irregularities in detail. Among various recommendations he suggested Abdou should leave the

¹² Abdou's village.

protected wetland; Abdou's brother should be replaced by a new owner of the ecotourism hostel; the local government was legally allowed to continue collecting one third of the revenues coming from the protected wetland; members within the management committee should be renewed every two years and Oceanium can continue leading the management of the protected wetland. FIBA project managers followed the consultant's recommendations and reported their final decisions to Abdou and the rural councilors (Kante, 2012). Thus, since 2014, when the French development agency will stop funding the protected wetland, the consultant recommendations will form the basis for the management of conservation in the area.

Conclusion: shaping democracy while building the social relations of production in conservation

Bumpus and Liverman (2011) argue that we must understand the socio-political effects that new channels of carbon capital create. This question cannot be analyzed by focusing solely on the realm of the project and on private sector performance. The reproduction of democratic deficits through the intervention studied here is related to a longer process of transformation of a local commons into a space used for capitalist exploitation that a transnational corporation recently joined. Before and during the intervention, actors seeking to make economic profit out of conservation supported each other while neglecting the views of most villagers through a wide range of acts of domination. By doing so they attempted to avoid competition from villagers and monopolize conservation decisions, *inter alia*, control over the production of capital, hence maintaining their ability to use villagers' labor-power whenever they required so to (Marx, 1876). Partnerships and inter-institutional recognition reinforced this power (Ribot et al., 2008; Igoe et al., 2011) while generating a subaltern class formed by those who were recognized instrumentally, abandoned and dominated by political institutions. The rules around mangrove conservation and carbon offsetting in Niombato are negotiated behind closed (and distant) doors, avoiding villagers' views and control over decisions related to conservation. By doing so, these institutions expand their ability to accumulate profit, produce and reproduce economic and social inequalities and erode democracy.

When estimating the potential benefits of forestry-related climate change mitigation interventions institutions promoting them focus only on the realm of the project. Such view, in addition to promoting neoliberal solutions to poverty reduction, overlooks the power relations in place and those within capitalist production. The literature on local politics and forestry management fails to acknowledge that carbon credit production, as conceptualized today as a capitalist mode of production (in that it requires exploitation and appropriation), requires inequalities to exist. Thus, the challenge is not how to attain security of rights and tenure as certain authors argue (Larson and Ram Dahal, 2012; Sunderlin et al., in press), but rather how forest dependent people can avoid being used and marginalized by these institutions and interventions. At the same time, the literature on capitalism and conservation fails to consider appropriation of labor-power as a key source of profit in the production of capital through conservation. The profits Abdou and his relatives generated through the hostel in the

protected wetland were only possible through their appropriation of villagers' labor-power (time and effort), what Marx (1976) called exploitation. In similar ways, Danone was only able to make profit out of carbon offsetting project through exploitation of local labor-power. Danone members and their local partners did not plant mangroves. Rather, villagers did it for them, and did not stop their work until the desired product (amount of planted hectares) was created.

Affected and exploited villagers made efforts to find support from institutions and resisted domination in various, often creative ways but their claims were ignored and replied to with repression and indifference. These responses tell us about the social relations between those institutional agents claiming to represent local interests and their actual commitment to social change that are more than anything else, the social relations of conservation-related capitalist production. De-democratization was crucial to ensure accumulation over time (Poteete and Ribot, 2011). Oceanium leaders, Abdou and his relatives maintained their ability to extract profit from Bamboung by monopolizing decision-making and defending this monopoly in various ways depending on their sources of accumulation. To avoid competition from other villagers, Abdou exerted direct domination over them while Oceanium project managers, who did not need to exert direct domination to ensure accumulation, shape democracy by avoiding local empowerment and recognizing Abdou as partner. The effects the protected wetland was having on villagers were not a concern for them. Rather, their exclusion (and that of the local government) from the management of mangrove conservation is part and parcel of their ability to extract profit from conservation.

In similar ways, the French development agency and FIBA have also acted as a force of de-democratization by resisting villagers' ability to decide about the fate of their lives. They have remained indifferent towards the effect of the ban on local populations and towards their continuous exclusion within decision-making processes. They have also reinforced the private ownership of the protected wetland by recognizing Oceanium's power before and by avoiding villagers' control of the means of production within the ecotourism hostel. These constant attempts to maintain villagers in inferior position relates helps understand why villagers only gain voice when denouncing abuses and not in the matter of continuous involvement in decision-making and why their credibility and the judgment of what is fair depend not on their voice, but on outsider expert knowledge (Foucault, 1980:30).

The reproduction of power inequalities in mangrove conservation in Niombato also takes place through a widespread institutional disengagement about villagers' lives by state institutions. Rural councilors, the sub-prefect, officials in the National Parks service have reacted with indifference to domination by Oceanium and other institutions and to villagers' claims with few exceptions. Disengagement is so far a key element missing in the literature on capitalism and conservation and natural resource management and democracy. While Gramsci's idea of hegemony has already been used (Igoe et al., 2011), his ideas about the effects of institutional disengagement in citizens have not been considered so far. Through this notion Gramsci (1917) condemns popular and institutional indifference and suggests disengagement "is the deadweight of history, it operates with great power on history, it operates passively, but it operates... state bureaucrats' indifference oppresses citizens through the tyranny of their

unattainable, impersonal and irresponsible incompetency". In Niombato, indifference towards domination has enabled domination in different forms, inter alia capitalist exploitation. Disengagement, together with domination acts as a destructive force with regards to democratization and a constructive force with regards to capitalist production. The path towards local emancipation from domination in conservation is likely to be resisted actively and passively by all these different state and non-state institutional agents, but the effects of their intentions will depend on the opposing forces to democratize conservation they find on the way.

References

Albaret, J.J., Simier, M. et Tito de Morais, L.. 2005, 'Suivi biologique des peuplements de poissons d'une aire protégée en zone de mangrove : le bolon de Bamboung (Sine-saloum, Sénégal)'. *Rapport final de la Convention particulière*, Vol. 3, Dakar: IRD.

Bäckstrand K. and Lövbrand E., 2006, 'Planting Trees to Mitigate Climate Change: Contested Discourses of Ecological Modernization, Green Governmentality and Civic Environmentalism', *Global Environmental Politics*, Vol. 6, No. 1, pp. 50-65.

Bandiak S. 2008, 'Gender Inequality in Malidino Biodiversity Community-Based Forest Reserve: Political parties and the Village Approach', *Conservation and Society*, Vol. 6, No.1, pp. 62-73.

Baviskar A., 2004. 'Between Micro-politics and Administrative Imperatives: Decentralization and the Watershed Mission in Madhya Pradesh, India', *European Journal of Development Research*, Vol. 16, No. 1, pp. 26-40.

Berry S., 1992, 'Hegemony on a shoestring – indirect rule and access to agricultural land', *Africa*, vol. 62, no. 3, pp. 327–55

Bierschenk T., Chaveau J.P. and Olivier de Sardan J.P., 2000, « Courtiers en developpement. Les villages africains en quete des projets », Paris : Karthala

Blundo, G. and Mongbo R., eds., 1999. 'Décentralization, pouvoirs sociaux et réseaux sociaux', *APAD Bulletin*, No. 16.

Brockington D., 2005, 'The politics and ethnography of environmentalisms in Tanzania', *African Affairs*, Vol. 105, No. 418, pp. 97-116.

Brockington D., Duffy R. and Igoe J., 2008, *Nature unbound: conservation, capitalism and the future of protected areas*, London: Earthscan.

Brockington D. and Scholfield K., 2011, 'The conservationist mode of production and conservation NGOs in sub-Saharan Africa', in D. Brockington and R. Duffy, eds., *Capitalism and conservation*, Chichester: Wiley-Blackwell.

Brunsson, N., 1989, *The Organization of Hypocrisy: Talk, Decisions and Action in Organizations*, New York: John Wiley & Sons.

Bumpus A.G. and Liverman D.M., 2011, 'Offsets, greenhouse gas reductions and sustainable development', in , R. Peet, P. Robins and M.J. Watts, eds., *Global Political Ecology*, New York: Routledge

Büscher, B., Sullivan S., Neves K., Igoe J. and Brockington D., 2012, 'Towards a Synthesized Critique of Neoliberal Biodiversity Conservation', *Capitalism Nature Socialism*, Vol. 23, No. 2, pp. 4-30

Communauté Rurale de Toubacouta, 2002, 'Procès Verbal de Délibération N° 6 du Conseil Rural de Toubacouta en date 10 Octobre 2002' (Minutes report of deliberation no. 6 by Toubacouta Rural Council, date 10 October 2002), 10 October 2002, Toubacouta, Republic of Senegal.

Corson C., 2011, 'Territorialization, enclosure and neoliberalism: non-state influence in struggles over Madagascar's forests', *Journal of Peasant Studies*, Vol. 38, No. 4, pp. 703–726.

Cortez R., Saines R., Griscom B. et al., 2010, *A nested approach to REDD+: structuring effective and transparent incentive mechanisms for REDD+ implementation at multiple scales*, Arlington: The Nature Conservancy

Danone Fund for Nature (DFN), 2010, 'Guidance for wet carbon projects', available online at http://www.ramsar.org/pdf/danone_carbon_proposals2009.pdf.

Diouf M., 2007, State formation and legitimation crisis in Senegal, *Review of African political economy*, Vol. No. 19(54), pp. 117-125.

Duchelle A.E., Cromberg M., Gebara M.F. et al., 'Linking Forest Tenure Reform, Environmental Compliance, and Incentives: Lessons from REDD+ Initiatives in the Brazilian Amazon', *World Development*, *In Press*.

Fairhead J., Leach M. and Scoones I., 2012. Green Grabbing: a new appropriation of nature?, *Journal of Peasant Studies*, Vol. 39, N°2, pp. 237-261.

Farbotko, C. and Lazrus, H., 2012 'The first climate refugees? Contesting global narratives of climate change in Tuvalu', *Global Environmental Change*, Vol. 22, No. 2, pp. 382-390.

Foucault, M. 1980. *Power/Knowledge: Selected interviews and other writings (1972-77)*. New York: Pantheon Press.

Fraser, N. 2007, 'Identity, Exclusion, and Critique: A Response to Four Critics', *European Journal of Political Theory*, Vol. 6, No. 3, pp. 305-338.

Gramsci A., 1917, 'I hate the indifferent', unpublished letter, Italy.

Harvey D., 2005, *A Brief History of Neoliberalism*, New York: Oxford University Press.

Heynen N, McCarthy J., Prudham S. and Robbins P., 2007, 'Introduction: false promises' in N. Heynen, J. McCarthy, S. Prudham, and P. Robbins (eds.), *Neoliberal Environments*, New York: Routledge.

Igoe J. and Croucher B., 2007, 'Conservation, commerce and communities: The story of community-based wildlife management areas in Tanzania's Northern tourist circuit', *Conservation and Society*, vol. 5, No.2, pp. 534-561.

Igoe J., Neves K. and Brockington D., 2011, 'A spectacular eco-tour around the historic bloc: theorising the convergence of biodiversity conservation and capitalist exploitation', in D. Brockington and R. Duffy, eds., *Capitalism and Conservation*, Chichester: Wiley-Blackwell.

Kante B., 2012, 'Rapport de mission. Appui juridique sur le statut légal de la structure de gestion de l'Aire marine Protégé communautaire du Bamboung', *unpublished paper*.

Kelly A.B., 2011, Conservation practice as primitive accumulation, *Journal of Peasant Studies*, Vol. 38, No.4, pp. 683-701

Kioupkiolis A., 2010, 'Radicalizing democracy', *Constellations*, Vol. 17, No 1, 137-154.

Klein M.A., 1968. *Islam and Imperialism in Senegal. Sine-Saloum 1847-1914*. Edingburgh: Edinburgh University Press.

Larson A.M. and Ram Dahal G., 'Forest tenure reform: new resource-rights for forest-based communities?', *Conservation and Society*, Vol. 10, No.2, pp. 77-90

Leach M., Mearns R., Scoones I., 1999, "Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management", *World Development*, Vol. 27, No. 2, pp. 225–247.

Livelihoods, 2012, 'The Livelihoods project of restoration of mangroves in Senegal validated by the United Nations' available online at: <http://www.livelihoods.eu/archive/2012/07/10/the-livelihoods-project-of-restoration-of-mangroves-in-seneg.html>, 4th February 2013.

MacDonald C., 2008, *Green, inc.: an environmental insider reveals how a good cause has gone bad*, Guilford: Lyon Press.

Marx, K., 1976, *Capital* Volume 1, London: Penguin Books.

Marx, K., 1993, *Grundrisse: foundations of the critique of political economy (rough draft)*, London: Penguin Books.

McCarthy, J., and Prudham S., 2004, 'Neoliberal nature and the nature of neoliberalism', *Geoforum*, Vol. 35, pp. 275–283

Pacheco P. and Kaimowitz D., 1998, 'Municipios y gestión forestal en el trópico boliviano', *Bosques y sociedad*, Vol. 3

Peet, R., Robbins, P. and Watts, M. J., 2011, 'Global nature', in: R.Peet, P.Robins, and M. J. Watts, (eds.), *Global Political Ecology*, New York: Routledge.

Peluso, N. and M. Watts, 2001, 'Violent Environments', in N. Peluso and M. Watts, eds., *Violent Environments*, pp. 3–38. Ithaca, NY and London: Cornell University Press.

Poteete A.R. and Ribot J. 2011, 'Repertoires of Domination: Decentralization as Process in Botswana and Senegal', *World Development*, Vol. 39, No. 3, pp. 439–449.

Quinn C.A., 1972, *Mandingo kingdoms of the Senegambia: traditionalism, Islam and European expansion*. Harlow: Longman.

Ramsar Convention, 2010, 'The Danone Fund for Nature', available online at http://www.ramsar.org/cda/en/ramsar-activities-partnershipindex-private-danone-danone-fund-for-23925/main/ramsar/1-63-506-98-398%5E23925_4000_0 . 13 June, 2012.

République du Sénégal (RdS), 1996, 'Loi portant transfert de compétences aux régions aux communes et aux communautés rurales' (Law on the Transfer of Powers to the Regions, Communes and Rural Communities), 22 March 1996. Dakar: Republic of Senegal.

République du Sénégal (RdS), 2003a, 'Règlement Intérieur de l'Aire Marine Protégée du Bamboung' (Internal Regulation of the Bamboung Protected Wetland), 2ⁿ April 2003. Dakar: Republic of Senegal.

République du Sénégal, 2003b, Arrêté Ministerial N° 1220, MEPN/DEEC portant création sur le comité national changements climatiques (COMNACC) (Ministerial Decree N° 1220 MEPN/DEEC creation of the Climate Change National Committee), 16 August 2003, Dakar: République of Senegal.

Reyes O., 2011, 'Zombie Carbon and Sectoral Market Mechanisms', *Capitalism, Nature, Socialism*, Vol. 22(4), pp. 117-135

Ribot, J. C. and Oyono, R. , 2006, 'Introduction: Decentralisation and Livelihoods in Africa', *Africa Development*, Vol. No. 2, 1-18

Ribot J., Chhatre A. and Lankina T. V. 2008, Institutional Choice and Recognition in the Formation and Consolidation of Democracy, *Representation, equity and environment Working Paper Series 35*, Washington: World Resource Institute.

Ribot J. 2009, Authority over Forests: Empowerment and Subordination in Senegal's Democratic Decentralization, *Development and Change*, vol. 40, no. 1, pp. 105-129.

Santilli, M., Moutinho, P., Schwartzman, S., Nepstad, D., Curran, L. and Nobre, C., 2005. Tropical deforestation and the Kyoto Protocol: an editorial essay, *Climatic Change*, Vol. 71, No. 3, pp. 267–76.

Scott J.C., 1985, *Weapons of the Weak: Everyday Forms of Peasant Resistance*, New Haven: Yale University Press.

Scott, J., 1990, *Domination and the arts of resistance: hidden transcripts*, New Haven: Yale University Press.

Spalding M., M. Kainuma and L. Collins, 2010, *World atlas of mangroves*, London: Earthscan.

Springer S., 2007, Public Space as Emancipation: Meditations on Anarchism, Radical Democracy, Neoliberalism and Violence', *Antipode*, Vol. 43 No. 2, pp. 525-562.

- Sullivan S., 2012, Financialization, Biodiversity Conservation and Equity: some currents and concerns, *Environment and Development series*, Vol. 16, Penang: Third World Network.
- Sunderlin, W. D., Larson A.M. and Duchelle A. et al., 2013, 'How are REDD+ Proponents Addressing Tenure Problems? Evidence from Brazil, Cameroon, Tanzania, Indonesia, and Vietnam, *World Development*, in press.
- Suso F.M., Glass P. and Sanders P., 1996, *Jali Kunda: Griots of West Africa and Beyond*, New York: Ellipsis Arts.
- Tienhaara K., 2012, 'The potential perils of forest carbon contracts for developing countries: cases from Africa', *The Journal of Peasant Studies*, Vol. 39, No. 2, pp. 551–572.
- Twilley, R. R., Chen R. H. and Hargis T., 1992, 'Carbon Sinks in Mangroves and Their Implications to Carbon Budget of Tropical Ecosystems', *Water, Air, and Soil Pollution*, Vol. 63, pp. 265–288.
- UNEP, 2012, 'Carbon Finance for Agriculture, Silviculture, Conservation and Action Against Deforestation (CASCADE)', available online at <http://www.unep.org/energy/Activities/CASCADE/tabid/79470/Default.aspx>.
- UNFCCC, 1997, *Kyoto Protocol to the United Nations Framework Convention on Climate Change*" (<http://unfccc.int/resource/docs/convkp/kpeng.pdf>). 5 July 2010
- UNFCCC, 2010, Clean Development Mechanism, Project Design Form for A/R CDM project activities (CDM-AR-PDD), available online at http://cdm.unfccc.int/filestorage/2/O/G/2OG4ZAT0X7CFSP1N95HKDUQ83J6MRI/PDD_form03_v05_Sample%20PDD%20accompanying%20new%20meth%20for%20tidal%20forests%20-%2021January2011.pdf?t=OVV8bWg4eXQ3fDCkk194k700Go1_ASH0-M3S. February 2012.
- UNFCCC, 2012, Glossary. CDM terms. Version 07.0, available online at http://cdm.unfccc.int/Reference/Guidclarif/glos_CDM.pdf. March 2012.
- Utting P and Jaubert R., 1998, 'Introduction' in P. Utting. and R. Jaubert, eds., *Discours et réalités des politiques participatives de gestion de l'environnement: Le cas du Sénégal*. Geneva: UNRISD and IUED.
- Vandergeest, P. and Peluso N., 1995, 'Territorialization and state power in Thailand', *Theory and Society*, Vol. 24, No.3, pp. 385–426.
- Vatn A. and Angelsen A., 2009, 'Options for a national REDD+ architecture' in A. Angelsen (ed.) *Realising REDD+ at the national level. National strategy and policy options*, Bogor Barat: CIFOR
- Wilshusen P.R., 2010, 'The Receiving End of Reform: Everyday Responses to Neoliberalization in Southeastern Mexico', *Antipode*, Vol. 22, No. 3, pp 767-799.
- Wood E.M., 1995. *Democracy against capitalism: renewing historical materialism*, Cambridge: Cambridge University Press

Yamin, F. and Depledge, J., 2004. *The International Climate Change Regime: a Guide to Rules, Institutions and Procedures*. Cambridge. Cambridge University Press

Acknowledgements

I am indebted to a number of people who made this paper possible. I am especially grateful to Jesse Ribot for being a unique source of support since the initial steps of my research until the production of this paper. Thanks to the family Diame and the whole village of Sourou and Dassilame Serere who took care of me while living there. I am also grateful to all the interviewees that took a piece of their time to contribute to this research. Thanks to all researchers in the Responsive Forestry Governance Initiative (RFGI) for sharing their knowledge and views during our meetings. I am also very grateful to Bakary Doucouré, Devanshi Chanchani and Harry Greatorex for their useful comments on an earlier draft and to my PhD colleagues who provided a pleasant atmosphere where to work. I would like to thank my supervisors Jonathan Pattenden and Christian Lund whose questions and comments on my recently started PhD research helped me put my thoughts in order when writing this paper. Finally, I thank the Swedish International Development Agency for its financial support to this research and the Council for the development of social research in Arica (CODESRIA) and the University of Illinois for the creation of the RFGI program. All mistakes in this paper are my responsibility.

Annex: Open-ended questionnaire for villagers

Name

Sex

Village

Occupation (of adults in the household)

Number of people in the household

1. Please, describe how the following institutions represent your interests and why.

Institution	Description	Scoring (from 0 to 10)	No knowledge of its existence
Central government			
Local government			
Village chief			
OCEANIUM			
Direction of National Parks			
Fishing Service			
FIBA			
AFD			

Danone			
--------	--	--	--

2. In general, how would you characterize the participation of most households in your village within the management of mangrove resources in the area? (Leave the question open ended and after try to select the option that matches best the answer. Include additional ones if needed)
 - A. We just follow the rules of forest protection
 - B. We participate in mangrove reforestation campaigns
 - C. We participate actively in the creation of rules around mangrove conservation and in changing them if necessary
 - D. Other

3. When development projects choose local partners in your village do they tend to choose the same people?

4. Are these villagers better-off than the rest of the village?
5. How do these villagers represent your interests?
6. Why do they represent well/bad your interests?

7. Are there members of your village who express more their views to local authorities or in village meetings than others? Who are these individuals? (Open ended question, then I will code).

8. Do all villagers equally benefit from development projects coming to your village? If not, who benefits the most?

9. If you disagree with any political decision that affects your life, do you go and talk to any authority or do you expect someone else to do it?

10. Why?

11. Have you ever expressed your views about mangrove conservation/management to a local authority?

12. If the answer is yes, what did you say? To whom? Where? What has been the response? Have you seen any changes after you communicated that?

Message expressed	To whom	Where	Response	Changes

13. Have you felt free to express your opinion about mangrove conservation/management?

14. Why?

15. Do you experience any challenges in influencing decisions taken in relation to mangrove resource management and conservation? If so, which challenges?

16. Do you agree with the permanent closure of the bolong?

17. Why?

18. Have you expressed your opinion about the closure of the bolong to local authorities?

19. Have you felt free to do it?

20. Why?

21. Has anyone in your village participated in the creation of Bamboung?

22. How has he/she represented your interests?

23. What was the period OCEANIUM said to you (if any) it would close the bolong for?

24. How did you first hear about the permanent closure of the bolong?

25. Have you participated in the mangrove reforestation project led by OCEANIUM (the CDM project I am studying)?

26. Why?

27. Were you involved in the decision-making process of the project? How?

28. (If the respondent was a participant of the CDM project) Did you get paid? What for? How much (per day)?

29. Has anyone informed you about the objectives of the project?
30. If so, who?
31. What did they say the objectives of the project were?
32. Who decided there would be a reforestation campaign in your village?
33. Have you participated in that decision?
34. Are there any other organizations together with OCEANIUM in the mangrove conservation project? Please, list them all.
35. Do you know what carbon credit is? Who gave you the information?
36. Are there any fishermen in your household? How many?
37. Have you or any member of your household stopped fishing since due to the permanent closure of the bolong of Bambang?
38. Describe (if any) the impacts of mangrove conservation on your household livelihoods and income
39. Describe (if any) the impacts of mangrove reforestation projects on your household livelihoods
40. Does any authority support you to carry the costs (if any) of mangrove conservation? If so, how?
41. Who do you think benefits the most from the creation of Bambang?
42. Who do you think is mostly affected?

