Contesting Conservation and Development: Quilombolas Struggling for Rights and Resources in the Ribeira Valley, Brazil

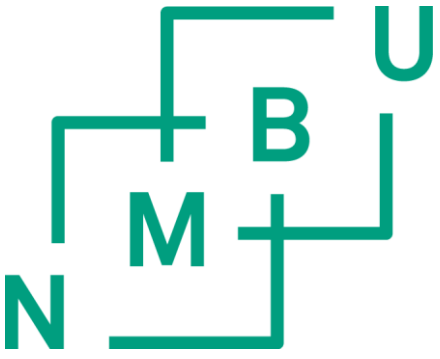
Imellom vern og utvikling:
quilombolaers kamp for rettigheter og ressurser i Ribeiradalen, Brasil

Philosophiae Doctor (PhD) Thesis

Kjersti Thorkildsen

Department of International Environment and Development Studies, Noragric
Faculty of Social Sciences
Norwegian University of Life Sciences

Ås (2016)



Thesis number 2016:17
ISSN 1894-6402
ISBN 978-82-575-1346-7

To Fernando, Gil, Frida and Katarina

"O governo é que nem feijão – só funciona sob pressão"

("The government is like beans – it only works under pressure")

(A Brazilian expression voiced on several occasions during fieldwork [beans are cooked in pressure pans])

Table of Contents

Part Two: Compilation of Papers

Paper 1: Thorkildsen, K. and R. Kaarhus. "'Exclusion's Double Edge': Challenges for the Realisation of Afro-Brazilian Quilombos' Rights to Land." Submitted to the *Latin American and Caribbean Ethnic Studies* 10 February 2016.

Paper 2: Thorkildsen, K. 2014. "Social-Ecological Changes in a Quilombola Community in the Atlantic Forest in Southeastern Brazil." *Human Ecology* **42(6)**:913-927.

Paper 3: Thorkildsen, K. 2016. "Justice in an Unequal Relationship? Negotiations Between the Quilombo Bombas and the Upper Ribeira State Touristic Park, Brazil." *Society and Natural Resources: An International Journal* **29(1)**: 20-35.

Paper 4: Thorkildsen, K. "'Land Yes, Dam No!' Justice-Seeking Strategies by the Anti-Dam Movement in the Ribeira Valley, Brazil." Submitted to the *Journal of Peasant Studies* 3 November 2015.

Annexes

Annex 1: Paper 2 Translated to Portuguese

Annex 2: Paper 3 Translated to Portuguese

Annex 3: Interview Guide to the 'Conservation' Component of the Thesis

Annex 4: Interview Guide to the 'Development' Component of the Thesis

Acknowledgements

The completion of this thesis would not have been possible without the support I have gotten from a wide range of people at different stages of the PhD. Each and every one has contributed in different ways, but all have been important.

My main supervisor, Randi Kaarhus, was instrumental in providing me with the opportunity to pursue a PhD. She has been extremely helpful throughout the entire research process; from writing-up of the research proposal, during fieldwork, in data analysis and in the writing stage. Randi Kaarhus has revised all the individual papers several times and has given inputs to the synthesising chapter. Additionally, she has supported me in times of difficulty and stood up for me when I needed. Randi Kaarhus has become much more than a supervisor for me, and I truly appreciate her competence, thoroughness and kindness.

My co-supervisor, Ian Bryceson, has also been helpful, particularly in the early phase of the research. He contributed a lot with ideas to research questions, to theoretical innovations, with contacts at the University of São Paulo (USP) and in preparing me for the field. Back in Norway, Ian Bryceson helped out with the analysis of Paper 2, contributing with new ideas for further development of the adaptive cycle. He also assisted in drawing the figures and graphs in Paper 2 and revised several drafts. I am very grateful for his support throughout the research process and for his insightful comments.

Special thanks are also extended to my local supervisor, Nilto Tatto, who was the leader of the Ribeira Valley Programme at the Socio-environmental NGO *Instituto Socioambiental* (ISA) during my fieldwork. Nilto Tatto has contributed with sharing of his knowledge and experience obtained from working in the area for an extended period of time and with his large network of contacts. He has also facilitated the data collection by inviting me to different quilombos, seminars, meetings, workshops and public hearings and for giving me rides to the Ribeira Valley from São Paulo. The rest of the Ribeira Valley team has also aided my data collection by inviting me to different events. The living and working together with this team gave an incredible opportunity to get insight into a vast number of issues which not many other researchers get. I thank Anna Maria Andrade, Raquel Pasinato, Ivy Wiens, Luca Fanelli, Juliana Ferreira, Maurício de Carvalho Nogueira, Renato Flavio Rezende Nestlehner, Willians Zorzan, Camila Pontes Abu-Yaghi Pereira, Marcos Miguel Gamberini, Náutica Pupo Pereria de Morais and Pascoal Baptistiny for making my stay in the Ribeira Valley productive and fun. I am also grateful to Cicero Cardoso Augusto, Maria Fernanda Prado, Rosimeire Rurico Sacó and William Pereira Lima at the Geoprocessing Laboratory of ISA for assistance with the different maps used in the thesis.

This thesis would not have been what it is without the participation of the inhabitants of Bombas. I am deeply grateful for Bombas community members' acceptance of my research, for their time, for sharing of their perceptions and knowledge and for inviting me to their homes, home gardens, agricultural fields, celebrations and different meetings. I am also indebted to the rest of the participants in this research, particularly quilombolas from Ivaporunduva, São Pedro, Nhunguara, Galvão, Porto Velho, Praia Grande, Abobral, Sapatu and André Lopes. I would also like to extend special thanks to Maria Sueli Berlanga at the Coordination and Advisory Team for Black Communities in the Ribeira Valley (EEACONE), Deborah Stucchi at the Public Attorney's Office (MPF), Maria Ignês Maricondi at the Land Institute of São Paulo (ITESP) and Michael Mary Nolan at the Land, Work and Citizenship

Institute (ITTC) for providing crucial insight into quilombolas' struggles over resources in the Ribeira Valley.

I further thank my colleagues at Noragric for inspiration, theoretical insight and support throughout the PhD period. I particularly thank Simon Pahle for encouraging me to go to Brazil through a Fredskorps' exchange in 2008 and later on to apply for a PhD position. Furthermore, I would like to thank my roommates, particularly Sunetro Ghosal, Marit Heller, Grete Benjaminsen and Helene Lie for inspiring conversations, exchange of thoughts and for all the laughs. I also thank Zeinabu Khalif, Mohamad Guyo, Marianne Karlsson, Kashif Saeed Khan, Amos Robert Ngwira**,** Progress Hanzwinda Nyanga, Frode Sundnes, Shai Divon, Hans Nicolai Adam, Devota Mwaseba, Lars Kåre Grimsby, Sigrid Nagoda, Kathrine Ivsett Johnsen, Cecilie Hirsch, Camilla Houeland and Mwesinge David Tumusiime at Noragric and Camilla Godø Risvoll at Norland Research Institute for intellectual exchange and friendship. Furthermore, I am grateful for comments on drafts of different papers and the synthesising chapter of the thesis by different academic staff at Noragric including Espen Sjaastad, Bill Derman and Tor Arve Benjaminsen, and appreciate suggestions and guidance from Pål Vedeld, John-Andrew McNeish, Esben Leifsen, Andrei Marin and Morten Jerven. The administrative staff at Noragric has also played an important part in the completion of this thesis. I thank Ingunn Andersen for constant encouragement, Josie Teurlings for help with practicalities and assistance with figures used in the thesis, Liv Ellingsen, Hilde Kristin Langsholt and Ingeborg Brandzæg for library services, Peter Nielsen and Anna Holm for payments of bills and Anne Kiøsterud for personnel management.

I would also like to extend my gratitude to comments made by the external discussants for my start-up, mid-term and late-term seminars; Sjur Kaasa and Asunción Lera St. Clair at the Center for International Climate and Environmental Research (CICERO) at the University of Oslo (UiO), Tanja Winther at the Center for Environment and Development Studies (SUM) at UiO and Axel Borchgrenvink at the Department of International Studies and Interpreting at the Oslo and Akershus University College of Applied Sciences (HiOA). Furthermore, I would like to thank Lucia Chamlian Munari at the University of Hohenheim for classification and analysis of land use change in Bombas as well as Vinícius Morais de Castro and Carina Inserra Bernini at USP and Rejanea de Assis Freitas from the Landless Workers' Movement (MST) for transcription of a large number of interviews.

Finally, I would like to thank my family who has supported me throughout the entire research process. My husband, Fernando Mathias, has provided exceptional support both in terms of giving professional inputs and in taking care of our children. Fernando has commented on all the individual papers and has translated the two published papers into Portuguese. I would also like to thank my parents, Thor Steinar Thorkildsen and Anne Marie Kittelsen, who have encouraged my research, have shown interest in the research, have supported me when I have been frustrated and have helped taking care of the children, both in Brazil and in Norway. Thanks are also extended to my brother Åsmund Thorkildsen and my uncle Tron Kittelsen for moral support. I also appreciate the help received from my parents in law, Luiz Roberto Baptista and Regina Mathias, with logistics and translations. Last but not least, I would like to thank my daughters, Frida and Katarina, and my stepson, Gil, for distracting me with plays and bringing me happiness throughout the years I have worked on this thesis, and for making me remember what is important in life.

Summary

This thesis sets out to explore how quilombolas, Afro-Brazilians descending from slaves, have responded to top-down conservation and development projects, and investigates different impediments to the realisation of quilombos' constitutional rights to land. By using a theoretical framework at the interface of political ecology, environmental justice and resilience, the thesis seeks to contribute to new knowledge on quilombolas' struggles for rights and resources. Data analysed in this thesis draw upon extensive fieldwork in the Ribeira Valley in south-eastern Brazil, where encroaching farmers, overlapping protected areas and planned dam projects threaten quilombolas' livelihoods and lands. A mixed-methods approach was used, involving participant observation, attendance in meetings, seminars and public hearings, in-depth interviews with key informants, a focus group discussion and comparison of forest cover and land use of aerial photographs and satellite images. The thesis comprises four separate but interrelated papers that provide novel insights into human-environment relations, social movement formation and ethnic identity construction. The thesis stresses that Afro-Brazilians' construction of an ethnic identity as quilombola and the genesis of the social movement MOAB were intimately woven into political and environmental processes. The creation of representative quilombola associations has enabled negotiations over territorial rights with state actors, where policies of strict environmental protection and discourses legitimating separation of people from nature have been contested. Strategies for ethnic *recognition* have resulted in many communities being officially recognised as quilombos. This has contributed to re-classification of strictly protected areas – which overlapped quilombola territories – into sustainable use areas, legalising human occupation and low-impact resource use. Strategies for *distributive justice* have resulted in quilombola communities getting access to social services and infrastructural development, while strategies for *participation* have ensured access to government authorities and information, involvement in negotiation processes and public hearings and the promise of prior consultations. The combination of different actions and claims addressing different actors at a range of scales in the Brazilian political system and internationally has contributed to the Tijuco Alto dam project having been put on halt for almost three decades. While the thesis highlights the potential of quilombolas to influence political outcomes, it also points to the limits of local agency and collective action, showing that exclusionary practices and discourses continue to be used against quilombolas. This hinder them in realising their rights to land and in meaningful participation in decisions that affect them. The slow and complex tilting processes and unresolved land ownership status in thousands of quilombola communities have contributed to increase local conflicts between quilombolas and established landowners. It is also common that internal conflicts arise between community inhabitants wanting private land titles and those who opt for collective ownership. Such conflicts are likely to aggravate if the Brazilian agribusiness lobby succeed in its mission to restrict quilombos' rights. Based on the research findings, the thesis challenges the usual polarisation between nature conservation and development, showing that both can be equally exclusionary, and advocates for the fulfilment of quilombos' rights to land, access to resources and promotion of their traditional agricultural practices. It is argued that this is not only important for safeguarding quilombolas' livelihoods and cultural practices, but also possibly for biodiversity conservation inside their territories.

Sammendrag

Denne avhandlingen har som formål å undersøke hvordan afrobrasilianske quilombolaer, som stammer fra tidligere slaver, har utfordret store naturvern- og utviklingsprosjekter, samt å analysere ulike hindre for oppfyllelsen av quilombolaers konstitusjonelle rettigheter til land. Gjennom bruk av et teoretisk rammeverk i skjæringsfeltet mellom politisk økologi, miljørettferdighet og 'resilience', tar studien sikte på å bidra til ny kunnskap om quilombolaers kamp om rettigheter og ressurser. De data som analyseres i denne avhandlingen bygger på omfattende feltarbeid i Ribeiradalen i sørøstlige Brasil, hvor nyinnflyttede bønder, overlappende verneområder og planlagte demningsprosjekter truer quilombolaers levesett og land. Studien anvender ulike metoder, som deltakende observasjon, også med deltakelse i møter, seminarer og offentlige høringer. Dessuten er det foretatt dybdeintervjuer med nøkkelinformanter og en fokusgruppe-diskusjon, samt sammenligning av skogdekke og arealbruk fra flyfoto og satellittbilder. Avhandlingen består av fire separate, men relaterte artikler som gir ny innsikt i menneske/miljø-relasjoner, dannelse av sosiale bevegelser og konstruksjon av etnisk identitet. Avhandlingen understreker at afrobrasilianeres etablering av den sosiale bevegelsen MOAB og deres konstruksjon av en etnisk identitet som quilombola har vært nært knyttet til politiske og miljømessige prosesser. Registrering av representative quilombola-foreninger har muliggjort forhandlinger om landrettigheter med statlige aktører der miljøvernpolitikk og diskurser som legitimerer separasjon av mennesker og natur har blitt omstridt. Strategier for etnisk *anerkjennelse* har bidratt til at mange quilombolasamfunn har fått en offisiell anerkjennelse. Dette har resultert i re-klassifisering av strengt vernede områder som har overlappet quilombola territorier til bærekraftig bruksområder. Disse tillater både bosetting og lav-effektiv ressursbruk. Strategier for *rettferdig fordeling* har resultert i at quilombolasamfunn har fått tilgang til offentlige velferdstjenester og infrastruktur, mens strategier for *deltakelse* har sikret tilgang til innflytelsesrike politiske organer, bedre tilgang til informasjon, involvering i forhandlingsprosesser og offentlige høringer samt løfte om forhåndskonsultasjoner. Dessuten har kombinasjonen av ulike aksjoner og krav rettet mot aktører på ulike nivåer i det brasilianske politiske systemet og internasjonalt bidratt til at demningsprosjektet Tijuco Alto har blitt satt på vent i nesten tre tiår. Selv om avhandlingen belyser mulighetene for quilombolaer til å påvirke politiske beslutninger, peker den også på begrensningene for lokal medvirkning og kollektiv handling ved å vise til at ekskluderende praksiser og diskurser fortsatt blir brukt mot quilombolaer. Dette hindrer dem i å realisere sine rettigheter til land og meningsfull deltakelse i beslutninger som påvirker dem. De langtrukne og kompliserte prosessene for tildeling av skjøter og uløste eierforhold i tusenvis av quilombolasamfunn har bidratt til å øke lokale konflikter mellom quilombolaer og etablerte landeiere. Det er også vanlig at interne konflikter oppstår mellom quilombolaer som ønsker privat eiendomsrett og de som ønsker kollektivt eierskap. Disse konfliktene vil trolig forverres dersom den brasilianske "agribusiness"-lobbyen lykkes i sitt forsøk på å begrense quilombolaers rettigheter. Basert på forskningsresultatene utfordrer avhandlingen den vanlige polariseringen av naturvern og utvikling ved å vise at begge kan være like ekskluderende, og argumenterer for at quilombolaers rettigheter til land oppfylles sammen med tilgang til ressurser og videreføring av deres tradisjonelle landbruksmetoder. Dette er ikke bare viktig for å ivareta quilombolaers levesett og kulturelle praksiser, men sannsynligvis også for bevaringen av biologisk mangfold i områdene der de bor.

Acronyms and Organisations

ABA	Associação Brasileira de Antropologia (Brazilian Association of Anthropology)
APA	Área de Proteção Ambiental (Environmental Protection Area)
APA-SM	Área de Proteção Ambiental da Serra do Mar (Serra do Mar Environmental Protection Area)
CBA	Companhia Brasileira de Alumínio (Brazilian Aluminium Company)
CBNRM	Community-Based Natural Resource Management
CEDAVAL	Centro de Desenvolvimento Agrícola do Vale do Ribeira (Centre for Agricultural Development of the Ribeira Valley)
CEDEA	Centro de Estudos, Defesa e Educação Ambiental (Environmental Defence and Studies Centre)
CESP	Centrais Energéticas de São Paulo (State Electrical Company of São Paulo)
CONAQ	Coordenação Nacional das Comunidades Negras Rurais Quilombolas (National Coordination of Quilombola Communities)
DAEE	Departamento de Águas e Energia Elétrica de São Paulo (The Department of Water and Electric Energy)
DNAEE	Departamento Nacional de Águas e Energia Elétrica (National Department of Water and Electric Energy)
EEACONE	Equipe de Articulação e Assessoria de Comunidades Negras – Vale do Ribeira (Coordination and Advisory Team for Black Communities in the Ribeira Valley)
EIA	Environmental Impact Assessment
FCP	Fundação Cultural Palmares (Palmares Cultural Foundation)
FF	Fundação Florestal (Forest Foundation)
FNB	Frente Negra Brasileira (The Brazilian Black Front)
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute of Environment and Renewable Natural Resources)
ILO	International Labour Organisation
INCRA	Instituto Nacional de Colonização e Reforma Agrária (National Institute for Colonisation and Agrarian Reform)
IPHAN	Instituto do Patrimônio Histórico e Artístico Nacional (National Institute for Historic and Artistic Heritage)
ISA	Instituto Socioambiental (Socio-environmental Institute [NGO])
ITESP	Fundação Instituto de Terras do Estado de São Paulo (Land Institute of São Paulo)
ITTC	Instituto Terra, Trabalho e Cidadania (Land, Work and Citizenship Institute [NGO])
MAB	Movimento dos Atingidos por Barragens (Movement of Dam-Affected Peoples)
MNU	Movimento Negro Unificado Brasil (The Brazilian Unified Black Movement)
MOAB	Movimento dos Ameaçados por Barragens (Movement of People Threatened by Dams)
MPF	Ministério Público Federal (Public Attorney's Office)
MST	Movimento dos Trabalhadores Rurais Sem Terra (Landless Workers' Movement)

NESH	Den Nasjonale Forskningsetiske Komité for Samfunnsvitenskap og Humaniora (National Committee for Research Ethics in the Social Sciences and the Humanities)
NGO	Non-Governmental Organisation
NMBU	Norges Miljø- og Biovitenskapelige Universitet (Norwegian University of Life Sciences)
Noragric	Department of International Environment and Development Studies
NSD	Norwegian Social Science Data Service
PECB	Parque Estadual de Carlos Botelho (Carlos Botelho State Park)
PEI	Parque Estadual de Intervales (Intervales State Park)
PEJ	Parque Estadual de Jacupiranga (Jacupiranga State Park)
PETAR	Parque Estadual Turístico do Alto Ribeira (Upper Ribeira State Touristic Park)
RBJA	Rede Brasileira de Justiça Ambiental (Brazilian Network on Environmental Justice)
RBMA	Reserva da Biosfera da Mata Atlântica (Atlantic Forest Biosphere Reserve)
SNUC	Sistema Nacional de Unidades de Conservação (National System of Conservation Units)
SUDELPA	Superintendência de Desenvolvimento do Litoral Paulista (Superintendence of Coastal São Paulo)
UFRJ	Universidade Federal de Rio de Janeiro (Federal University of Rio de Janeiro)
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICAMP	Universidade de Campinas (University of Campinas)
US	United States
USP	Universidade de São Paulo (University of São Paulo)
WCD	World Commission on Dams

Part One: Synthesising Chapter

1. INTRODUCTION

Quilombolas[1], Afro-Brazilians descending from slaves, are frequently believed to be one of the most marginalised groups in Brazil, which is considered one of the most unequal countries in the world (Rapoport 2008). The humanity of enslaved people was systematically deconstructed through 300 years of colonisation, but also after slavery's abolition in 1888, did former slaves and their descendants continue to suffer from domination and violation of rights (Leite 2015, Machado 2006, Martins et al. 2004). Only at the centenary of abolition of slavery and the end of two decades of military dictatorship were quilombos' territorial, cultural and political rights recognised as reparation for historical injustices (Scott 1988, Schwartz 1992). However, quilombos' right to land, as stipulated in the 1988 Constitution, has had a hard time in being fulfilled and only a few quilombola communities have to date been titled. Without official recognition from the government, quilombolas remain excluded from effective access to basic citizen rights, social services and public programs (Loloum and Lins 2012). Furthermore, without formal land titles, quilombolas regularly suffer from threats from third parties and nearby landowners and the implementation of conservation or development projects inside their territories (Porto et al. 2013). Adding to these difficulties are the recurrent internal conflicts over land taking place both within families and at community level in a situation of unresolved land ownership status. This thesis addresses different impediments to the realisation of quilombos' rights as well as community inhabitants' responses to top-down conservation and development projects threatening their livelihoods and lands. Focusing on the region of the Ribeira Valley in south-eastern Brazil, the thesis examines quilombolas' struggles against strictly environmentally protected areas and against the construction of large hydropower dams.

1.1 Background

Brazil was one of the first countries in the 'New World' to establish a colonial economy based on slave labour from Africa, and also the last nation in the Americas to formally abolish this institution (Rapoport 2008, Mattoso 1986). The Portuguese colonisers started to import slaves from Africa to Brazil in the mid-16th century when a permanent sugar colony was established in Bahia in the northeast and precious metals were discovered in the southeast (Conrad 1994:3-4). At the end of slave trafficking in 1850, about 5 million slaves had forcibly been taken from Africa to Brazil, making Brazil the destination of the highest number of slaves in all the colonial holdings during the Atlantic slave trade era (French 2009, Schwartz 1992). From the inception of slavery, enslaved people resisted through various means, including 'foot-dragging', sabotage, suicide, infanticide, hunger-strikes and armed revolt. One of the

[1] Quilombolas are inhabitants of Afro-Brazilian communities composed of descendants of either run-away slaves, slaves who bought their freedom, or freed slaves who received land by donation or through heritage or who occupied abandoned or unoccupied government lands. These communities are called quilombos (Schmitt et al. 2002).

most common forms of resistance was the flight to unoccupied lands where they established communities called *quilombos*[2] (Schwartz 1992:103).

Originally, the term *quilombo* was used by the Portuguese Crown to refer to the illegal occupation of land by fugitive slaves (Leite 2008). This became clear when the Colonial Legislation of 1740 defined quilombo as 'any habitation of five or more black fugitives residing on land that is uninhabited and uncultivated' (Leite 2008:970, Schmitt et al. 2002). This definition reflected the Crown's attitude toward these groups not as communities but as criminals, which justified the use of violence to suppress these groups (Farfán-Santos 2015:116). However, in the late-19th century, abolitionists re-appropriated the term 'quilombo' to highlight a range of inequalities for slaves and former slaves – including land distribution, labour and educational rights – signalising a wish for social change and the transformation of Brazilian society. When the Brazilian parliament finally passed the 'Golden Law' (*Lei Aúrea),* which officially abolished slavery (Scott 1988, Schwartz 1992), it was, however, assumed that quilombos would cease to exist. The issue of land for former slaves and their descendants was thus not addressed in the first Republican Brazilian Constitution of 1891 (Almeida 2002).

The Brazilian Black Front (FNB), a social movement that operated between 1931 and 1937, came to use the term *quilombo* as a form of political resistance against the whitening ideology and the exclusion of black people during the Republican project of modernisation (Leite 2015, Farfán-Santos 2015). Assimilation policies and the myth of 'racial democracy' were endorsed during two periods of dictatorship in the 20th century, but with the political liberalisation during the transition to democracy in the early-1980s, the Unified Black Movement (MNU) began to actively accuse the Brazilian state apparatus of structural racism (Leite 2008, Cardoso and Gomes 2011). Activists in the Black Movement and several members of the Parliament took demands for affirmative actions as well as multicultural citizenship for Afro-descendant communities to the National Constituent Assembly that drafted the 1988 Constitution (Hooker 2005). These and other civil society lobbying efforts inside the Constituent Assembly contributed to the enactment of the rights of Afro-Brazilian quilombos to cultural protection and land ownership. Articles 215 and 216 in the 1988 Constitution laid down quilombos' cultural rights, while Article 68 of the Temporary Constitutional Provisions Act established their right to land, declaring that: 'Final ownership shall be recognised for the remaining members of the ancient runaway slave communities who are occupying their lands and the state shall grant them the respective title deeds' (Brazil 2010).[3]

Quilombos' rights to land was included in the 'transitory' section of the Constitution since it was assumed that only a few communities continued to exist in contemporary Brazil as 'survivals' of the original quilombos, and that all would be identified and granted land within

[2] Schwartz (1992) traces the etymology of *quilombo* to the Angolan KiMbundu language, where *kilombo* could refer to a 'warrior settlement' or circumcision camp related to a male initiation society, preparing the young for adulthood.

[3] In the 1990s, a Quilombola Movement surged with its own agenda, separating it from the Black Movement. The Black Movement had an urban foundation where Afro-Brazilians predominantly organised against racial discrimination and for affirmative actions. The Quilombola Movement was largely composed of rural black community residents advocating for land right as stipulated in the 1988 Constitution (although there is currently an increasing number of urban communities pleading recognition as quilombola). Quilombolas differ from other Afro-Brazilians in their specific rights to land ownership and cultural protection associated with an ethnic identity based on ancestral history, cultural practices, collective labour organisation and use of natural resources, and relationship to their land.

a few years (French 2009, Arruti 2006). However, it did not specify who the descendants of quilombos were, which contributed to disagreements over how to define 'legitimate' quilombos. The Palmares Cultural Foundation (FCP) – under the Ministry of Culture – was the first federal agency to offer an official definition of quilombo in 1994 as 'any Black rural community composed of descendants from slaves, who survive through subsistence agriculture, with cultural manifestations strongly linked to the past' (Leite 2015:1227). The focus was thus put on race (blackness) and labour (subsistence agriculture). The Brazilian Anthropological Association (ABA) criticised this definition, highlighting the importance of cultural and material inheritance that relates to a sentiment of belonging to a specific place or group (Pacheco de Oliveira 1994:81). Based on Fredrik Barth's (1969) theory on ethnic groups and boundaries, ABA described how quilombos emerge in local contexts and are constituted in particular spaces or places through historically situated familiar relations and, hence, should not be reduced to race or to biology. By arguing that quilombolas were ethnic groups organised around their own rules of membership and belonging, ABA shifted the focus on race to ethnicity (Farfán-Santos 2015). Furthermore, ABA argued that quilombolas live collectively and should therefore be granted collective ownership to land (Pacheco de Oliveira 1994:81).[4]

ABA's use of the theory on ethnic groups and boundaries influenced subsequent debates about the definition of quilombos and set the theoretical ground for the later adoption of 'self-identification' by Presidential Decree 4.887 in 2003, which regulates 'transitory' Article 68 (Leite 2015). This decree officially defined quilombo as a 'self-identified, ethno-racial group with their own historical trajectory, a specific relationship to the land and the presumption of a black ancestry connected to forms of resistance to historical oppression'. Self-identification has also been secured by the ILO Convention 169 on Indigenous and Tribal Peoples, which was ratified by Brazil in 2002, where quilombolas fall under the category of 'tribal peoples'. French (2004:664) points out that 'self-identification' is a process of taking up an identity with the resulting transformation in the significance of local cultural practices and selfhood, and is therefore a complex process of becoming.

Although the knowledge about quilombos' rights to land ownership had started a process of re-elaboration of identity for many Afro-Brazilian communities in the early 1990s, what catalysed this process was the element of self-identification. Internal discussions about quilombola identity and self-identification were often initiated with encouragement from the Catholic Church, NGOs, government agencies in charge of recognition processes, anthropologists, or from other Afro-Brazilian communities who had gone through or were going through self-identification processes. It is, however, important to remember that before 'quilombo' became a symbol of cultural resistance, it was a criminalised organisation persecuted by the state and many community members did therefore not want to be associated with this term (Farfán-Santos 2015). Also, memories of slavery had often been suppressed due to trauma, and much cultural diversity had been lost as a result of hundreds of years of slavery, which had denied kinship, language, religious systems and aesthetics (Leite 2015). Still, the constitutional recognition of quilombos' rights triggered discussions about the history of slavery, labour organisation and cultural traditions, which in many instances served to strengthen a collective identity (Penna-Firme and Brondizio 2007). Farafán-Santos (2015) stresses that inhabitants do not change the ways they live by self-identifying as quilombola,

[4] Collective land titles are now the norm for quilombos, meaning that their land cannot be sold, transferred or rented out (Santilli 2010).

but they learn how to redefine their lives in the appropriate language of 'cultural recognition'. Self-identification is therefore not a process of performance, but rather a learning process that is necessitated not by the community's lack of historical knowledge but the hundreds of years of exclusion (Farfán-Santos 2015).

In order to have their territories officially titled, it is, however, not sufficient for communities to self-identify as quilombola. Quilombos need to pass a two-part process; first, the community has to be recognised by the Palmares Cultural Foundation (FCP), then, the National Institute of Colonisation and Agrarian Reform (INCRA) – a federal land agency under the Ministry of Agrarian Development – must settle the land title. For FCP to issue a certificate of recognition, a community must self-identify as quilombo *and* present a historical report, which elaborates on the origin of ancestors, traditional land use and religious and labour practices (Farfán-Santos 2015). The majority of residents need to agree with the recognition process and form an association, which is the legal representation of the quilombola community.[5] After obtaining cultural recognition from FCP, a community has to go through a land title settlement process with INCRA. INCRA then produces its own report on the demographics, history, work, environment and socio-cultural life of the community. Nevertheless, due to the extremely slow bureaucratic procedure of land titling with INCRA, the majority of the granted quilombola land titles have been secured by a few active land agencies at the state-level, which have established separate titling guidelines[6] (Rapoport 2008). As of December 2015, 2427 communities had been officially certified by FCP whereas the National Coordination of Quilombola Communities (CONAQ) has estimated that around 5000 communities exist throughout Brazil (Leite 2015). Given this large number of quilombola communities, it is quite surprising that only 163 land titles (covering 760,016 hectares[7]) have been emitted by INCRA and land agencies at the state-level (CPI-SP 2015). The initial assumption that few communities existed and that all would be titled within a few years – laying the ground for the insertion of Article 68 in the 'transitory' section of the 1988 Constitution – was therefore far from the reality.

The federal situation of quilombos is reflected in the Ribeira Valley, stretching between the states of São Paulo and Paraná in south-eastern Brazil. Here, 25 quilombos have been officially recognised by the state land agency Land Institute of São Paulo (ITESP) and of these, six have obtained land titles, but only one has managed to register its title in a Notary Office; the final step of the titling process (ITESP 2015). This is also a surprisingly low number, seeing that 88 quilombos have been identified by the Coordination and Advisory Team for Black Communities in the Ribeira Valley (EEACONE) (Andrade and Tatto 2013). One of the reasons for only one community having managed to register its land title is that third parties holding land titles inside quilombos have to be expropriated before collective quilombola titles can be issued, and this is generally not done by land agencies although covered by their legal statutes. Many farmers settled down inside quilombos in the Ribeira Valley in the 1970s as a result of tax incentives and other benefits for cattle ranching and banana plantations provided by the government, then under dictatorship regime, in an effort to 'occupy' the region. This stimulated many farmers to buy land titles, but it also attracted

[5] Since the land title of a quilombo is collective, the community must go through a process of collective registration to become a quilombola community association (Leite 2015).

[6] Brazil is organised into federal, state and municipality levels. Quilombos can be recognised at the federal level by FCP and titled by INCRA. Alternatively, a state-level land agency can emit both recognition and land title, for instance the São Paulo Land Insitute (ITESP) in the state of São Paulo.

[7] The total land area of Brazil is a little over 850 million hectares.

many ‘land grabbers’ (Adams et al. 2013, Queiroz 1983). Due to competing land claims inside quilombos, already recognised quilombos await action from the federal land agency INCRA, which usually stall title settlement processes for several years (Farfán-Santos 2015).

In the Ribeira Valley, conflicts over land between quilombolas and third parties have resulted in threats and incidents of homicides, invasions, burnt houses and damaged agricultural plots. Additionally, quilombolas started to face restrictions on their resource use and threats of eviction when different strictly environmentally protected areas – overlapping their territories – were implemented in the mid-1980s. At the same time, the Brazilian Aluminium Company (CBA) was granted concession to use the hydraulic energy of a stretch of the upper part of the Ribeira de Iguape River, where it intended to build the Tijuco Alto dam. This was one of four[8] planned hydropower dams on this river, threatening to partly inundate a number of quilombos, change the river ecology and thereby affect their cultural and livelihood practices. Although protected areas are often put forward as an ‘antidote to development and a bulwark against its externalities’, there are in fact uncomfortable similarities between the impacts of conservation and development projects from the perspective of quilombolas (Geisler 2003, Hall et al. 2011:66). Contrary to the narrative that poses environmental protection and economic development as mutually antagonistic, protected areas share two important features with large-scale development projects such as dams; they exclude people from access to land and they legitimate exclusion in the name of a common good of current and future generations (Hall et al. 2011:78-83).

Aggravated conflicts between quilombolas and third parties, the enforcement of environmental regulations – restricting quilombolas’ natural resource use practices – and CBA’s granted concession for use of the hydraulic energy of the Ribeira de Iguape River, coincided with the moment quilombos’ rights to land was enacted in the 1988 Constitution. The convergence of these different incidents sparked the political organisation and mobilisation of quilombola communities in the Ribeira Valley. For the first time in history, they entered the public arena contesting dominant conservation and development discourses and claimed recognition of a quilombola identity, land rights, access to social services and infrastructure development, and participation in decisions affecting their lives. Since both top-down conservation and development projects have been challenged by quilombolas, this thesis includes a ‘conservation’ component dealing with strictly protected areas and a ‘development’ component addressing the dam proposals on the Ribeira de Iguape River.[9]

1.1.1 Nature Conservation

The Ribeira Valley holds the largest and best-preserved remnant of Atlantic Forest in Brazil, comprising more than 2.1 million hectares, which accounts for 21 % of the national total (Santos and Tatto 2008). The Atlantic Forest is frequently presented as one of the most threatened tropic biomes on the planet (Myers et al. 2000, Galindo-Leal and Câmara 2003, Mittermeier 2004). It once formed a continuous forest cover of almost one and a half million km² stretching from 3°S to 31°S, and from 35°W to 60°W, mainly extending along the Brazilian coast (92 %), but also reaching into Paraguay (Huang et al. 2007) and Argentina (Giraudo 2003). At present, the Brazilian Atlantic Forest represents between 11.4 % and 16 %

[8] The Tijuco Alto dam planned by the Brazilian Aluminium Company (CBA) and the Itaoca, Funil and Batatal dams planned by the Electrical Company of São Paulo (CESP).

[9] Both ‘conservation’ and ‘development’ are hyphenated as the dominant meaning of these terms are contested in this thesis.

of its original extent of 1,290,000 km², depending on whether or not intermediate secondary forests and small fragments (<100 ha) are included in the calculations (Ribeiro et al. 2009). This drastic deforestation is a result of five centuries of intense human occupation and use since the Portuguese colonisation (Dean 1996, Metzger et al. 2009). Despite its reduction, the Brazilian Atlantic Forest supports a high degree of species richness and endemism. More than 20,000 species of plants (8000 endemic), 261 species of mammals (55 endemic), 1023 species of birds (188 endemic), 200 species of reptiles (60 endemic), 340 species of amphibians (87 endemic) and 350 species of fish (133 endemic) have so far been recorded (Goerck 1997, Silva and Casteleti 2003, Ribeiro et al. 2009, Varjabedian 2010). However, it is widely believed that the fragmented nature of the forest remnants leaves many of these species susceptible to extinction (Ribeiro et al. 2009, Lira et al. 2012).

As a response to national and international concerns over habitat reduction of remaining forest patches and biodiversity loss by environmental activists and researchers, large tracts of Atlantic Forest have been transformed into protected areas (Diegues 1998). The Atlantic Forest was declared a National Patrimony in Brazil in the 1988 Constitution, followed by the launching of the Atlantic Forest Biosphere Reserve (RBMA) in 1991, which led to its recognition as a World Natural Heritage Site by UNESCO in 1999 (Rylands and Brandon 2005, Penna-Firme 2013). Only in the Ribeira Valley, 41 protected areas have been established, covering more than 50 % of the total area. These make up an integrated mosaic of terrestrial and marine protected areas, including parks, ecological stations, extractive reserves and areas of sustainable development (Figure 1). Of these, 24 are classified as strictly protected areas aimed at protecting areas of high wildlife and botanical value, where no human occupation or activity is allowed. Many of the strictly protected areas established in the Ribeira Valley overlap quilombola territories, which have been inhabited for centuries. However, with the new regulations of the strictly protected areas in place, quilombolas started to face threats of eviction and be fined for environmental crimes (Ferreira 2004, Andrade and Tatto 2013). The restricted access to natural resources and loss of customary rights to land produced insecurity for many quilombola inhabitants.

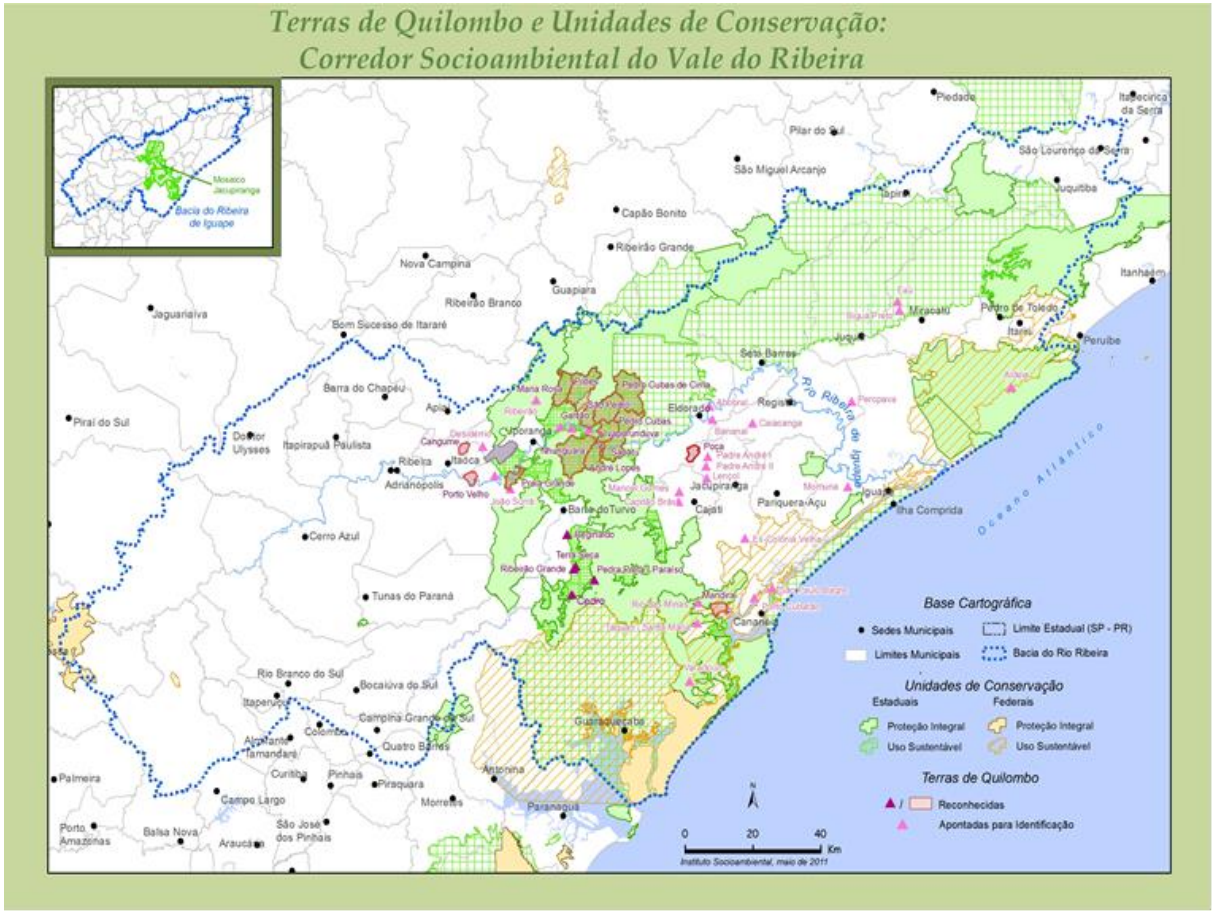


Figure 1: Map over the Ribeira Valley, showing the overlapping of protected areas in green and quilombos in red (Source: ISA 2011).

The wide adoption of strictly protected areas in Brazil has been influenced by the North American 'fortress approach' to conservation, which involves the fencing off of pieces of nature as a way of 'mitigating' human impact (Diegues 1998, Penna-Firme 2013). Exclusionary approaches to nature conservation have been founded on the conception of nature and human society as separate entities (Oudenhoven et al. 2011, West et al. 2006). The setting aside of areas for conservation is sustained by environmental discourses labelling human activities in ecosystems as 'disturbances', focusing largely on their negative aspects, resulting in a simplistic but pervasive view of all resource use as damaging to biodiversity and ecosystems (Western 2001, Maiorano et al. 2008). Particularly small-holders' use of fire in agricultural practices have been portrayed as a primary cause of forest loss and seen as anathema to forest conservation. However, such an ahistorical representation of landscapes has ignored the role that human agents have played in shaping and maintaining many globally important ecosystems through processes of co-evolution (Escobar 1999, Diegues 1998, Beymer-Farris and Bassett 2012).

For instance, Posey's (1985) analysis of anthropogenic forest patches (*apêtê*) of the Kayapó in the Brazilian Amazon Basin demonstrated how fire is used for controlling and directing environmental change. In doing this, Posey illustrated how previously assumed 'pristine' ecosystems have long been consciously modified by humans. Many studies have since shown that the use of shifting cultivation practices – involving the use of fire – are important for producing biologically diverse forests in multiple states (Forsyth and Walker 2008, Beymer-

Farris 2013, Beymer-Farris and Basset 2012, Adams et al. 2013, Van Vliet et al. 2012). This is because the alternation of opening of small agricultural plots in the forest for cultivation and different lengths of fallow periods serve to produce a patchy and more complex forest structure, supporting a wide range of habitat niches for both wild and cultivated species. 'Stable equilibrium' assumptions and 'balance of nature' ecological theories – used to support the creation of strictly protected areas – have thus been challenged by scholars highlighting the importance of small perturbations in producing biodiversity and enhancing ecosystem resilience (e.g. Begossi 1998, Porro 2005, Zimmerer 2000, Sanches 2001, Beymer-Farris 2013).

Due to the advocacy for the legalisation of settlements of human communities inside protected areas by a large number of scholars, activists and Park-inhabitants themselves, a shift took place in the 1980s from strict protection to more participatory approaches to nature conservation (Esterci and Fernandez 2009, Brockington et al. 2008). Community-Based Natural Resource Management (CBNRM) started to proliferate around the world in the 1990s, but many of these initiatives have later been criticised for not providing effective biodiversity protection and for contributing to increased local conflicts over resource control and corruption (Brozius et al. 2005). In practice, many of the CBNRM projects have been top-down and the degree of local participation and benefits has been questioned. Based on arguments of the 'failure' of CBNRM, a return to the fortress model has taken place, often called 'resurgent protectionism' (Adams 2009, Forsyth and Walker 2008, Beymer-Farris and Basset 2012). In Brazil, the 'fortress approach' to conservation continues to have a central stand, although more inclusive environmental decision-making procedures have been implemented. Many quilombola communities that are overlapped by strictly protected areas therefore continue to face restrictions on their resource use practices and continue to contest exclusive approaches to nature conservation.

1.1.2 Dam Proposals

Planned hydropower dams on the Ribeira de Iguape River also pose a threat to quilombola communities' access to land and natural resources. Brazil is one of the leading dam-building nations in the world with more than 1000 large dams in operation, contributing to 64 % of the country's total installed electrical capacity (ANEEL 2013). Already in the beginning of the 1970s, almost all of the large rivers in the southern central region had been dammed (e.g. Tietê, Paraná, São Francisco, Tocantins, Grande, Doce, Paraíba and Itaipu). The Brazilian government is currently building and planning new dam projects in order to take full advantage of its hydroelectric potential to supply the 'pressing need for economic expansion' (MME/EPE 2012). Many controversial dams are now under construction in the Amazon – such as Brazil's largest infrastructure project, the Belo Monte dam complex, on the Xingu River – with detrimental impacts on indigenous peoples, other local inhabitants and the environment (Hall 2011, Klein 2015, McCormick 2006, Baptista and Thorkildsen 2010).

Proponents of hydropower dams point to the need to supply the growing demand for 'cheap' and 'clean' energy to residents and industries and highlight the benefits of employment generation, infrastructure development and improved quality of life, flood control, reduced emissions of carbon and mitigating effects on global warming (Bermann 2007, Sternberg 2008). However, the social benefits are generally overstated since a large amount of the generated energy serves to subsidise energy-intensive industries that employ only a small workforce in Brazil (Fearnside 2006). Furthermore, hydroelectricity is neither as cheap nor as

clean as often stated, holding many social and environmental costs that are not accounted for. General criticism of dams points to large-scale flooding of land upon the filling of dam reservoirs and the dispossession of local populations (WCD 2000, McCully 2001). There are also many impacts downstream of the dam associated with the changed river flow, erosion of riverbanks, increased sedimentation, difficulties of navigation and disruption of the reproduction of anadromous fish species – which need to migrate upstream to spawn (Fearnside 2001, 2006, McCully 2001, Sternberg 2008, WCD 2000). Furthermore, health effects have been reported due to the creation of ideal breeding grounds for malaria mosquitoes and schistosomiasis in dam reservoirs, as well as impaired water quality associated with methylation of mercury or lead contamination causing acidification of the water with serious consequences for local populations and consumers of fish in urban centres (Fearnside 2001).

Such ecological and social impacts are, however, generally downplayed in Environmental Impact Assessments (EIAs) and receive little consideration when decisions are taken (McCully 2001). According to the World Commission on Dams (WCD, 2000), in nearly every case, impact assessments seriously underestimate the number of people eligible for compensation or resettlement. The Brazilian Movement of Dam-Affected Peoples (MAB) has estimated that one million Brazilians have been impacted by dam constructions, and that 70 % of these have not received compensation for their losses (Barboza 2006). The Brazilian Energy Plan 2021 estimates that 62,000 people will be directly affected by the 34 dams planned to be constructed within the next ten years, but MAB contest this number arguing that 250,000 people will likely be affected (MAB 2013). Hundreds of thousands of families have so far forcibly been displaced by dams in Brazil, and without other options, many move to slums in large cities or, alternatively, join the Landless Workers' Movement (MST) and struggle to get a small parcel of land to cultivate (Wolford 2010).

The Ribeira de Iguape River is the last large river in the states of São Paulo and Paraná that has not had its course interrupted by dams. Nevertheless, it has long been the target for exploitation of its hydroelectric potential. The São Paulo State Department of Water and Electric Energy (DAEE) elaborated a basic project for hydroelectric use of the river already in the 1950s, and obtained concession in 1974 for the capture, derivation and regulation of the Ribeira River on a stretch in Medium Ribeira. In 1992, the State Electrical Company of São Paulo (CESP) tried to transfer this concession, but the concession had expired. Still, CESP presented inventory studies of three dams in Medium Ribeira; Itaóca, Funil and Batatal, with an overall expected installed capacity of 296 MW and three reservoirs of together 5400 hectares (Figure 2). This study was approved by the National Department of Water and Electric Energy (DNAEE – presently called ANEEL) and Eletrobrás in 1994. CESP has, however, not been granted concession for the use of the hydraulic energy of the river in Medium Ribeira and has – according to Eletrobrás – given up this project as no enterprises have shown interest (Bermann 2007).

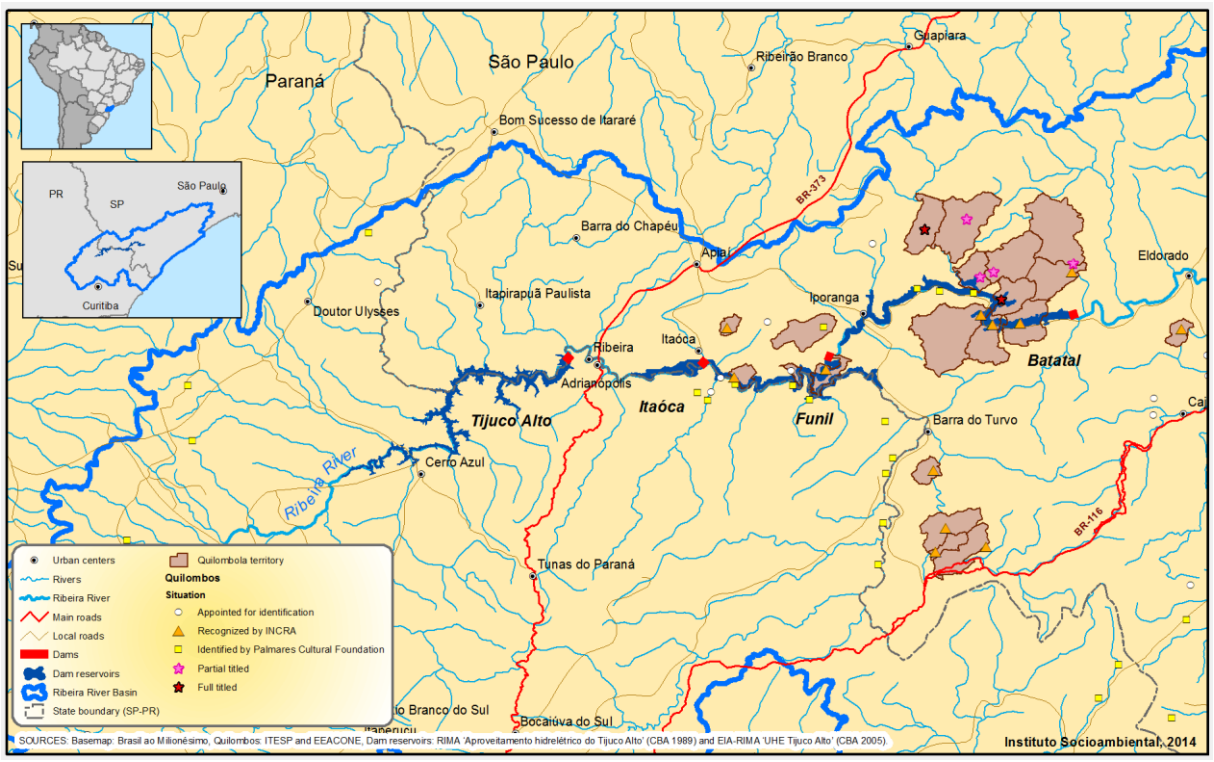


Figure 2: Position of the four planned dams on the Ribeira de Iguape River; Tijuco Alto, Itaóca, Funil and Batatal with projected flooded areas in dark blue. *Quilombola* territories are highlighted in brown (Source: Translated version of map published in Tatto (2014)).

The private Brazilian Aluminium Company (CBA)[10] was granted concession to use the hydraulic energy of the Ribeira de Iguape River in Upper Ribeira in 1988 with a validity of 30 years. CBA has planned to build the Tijuco Alto hydropower dam with an expected installed capacity of 144 MW to exclusively supply its' energy-intensive aluminium-smelting. This project involves the construction of a 142 m tall dam, which will produce a 5,650 hectares large dam reservoir (Coelho and Favareto 2008, Sevá Filho et al. 2007). However, CBA has not yet obtained a preliminary license – the first of the three licenses making up the environmental license – needed before construction can begin.[11] CBA carried out an EIA in 1989 and requested preliminary licenses from the state environmental agencies in São Paulo and Paraná, which were granted in 1994 and 1995 respectively. However, the Public Attorney's Office (MPF) entered with a lawsuit claiming that the license needed to be issued by a federal authority as the Ribeira de Iguape is a federal river running through two states. This culminated in the suspension of the already granted licenses in 1999 (Bermann 2007). A second licensing process for Tijuco Alto began a few months later, but this time in the federal environmental control agency (IBAMA). IBAMA re-evaluated the EIA, but the license was once again dismissed in 2003 due to the lack of an integrated evaluation of the impacts of the possible construction of more than one dam on the Ribeira de Iguape River (Sevá Filho et al.

[10] CBA is a subsidiary of the Votorantim Group, which is a 100 % Brazilian company that operates in the sectors of cement, metals, steel, energy, pulp and agribusiness. CBA is the Brazilian market leader in primary aluminium with a total installed production capacity of 475,000 tons/year and has a metallurgical complex in the municipality of Aluminium (previously Marinique), situated about 300 km from the location of the proposed dam.

[11] The environmental license consists of three separate licenses: the preliminary, installation and operation licenses.

2007). A third licensing process was opened in 2004 after CBA had reviewed the project and announced that the consultancy company CNEC Engineering would undertake a new EIA. The EIA was delivered to IBAMA in 2005, which emitted a technical opinion endorsing the EIA in 2008. Still, no preliminary license has been issued due to the lack of prior consultations held with quilombola communities in accordance with the ILO Convention 169.

Since CESP has not obtained concession to use the hydraulic energy of the river in Medium Ribeira and CBA still awaits a preliminary license for the Tijuco Alto dam, no dams have so far been constructed on the Ribeira de Iguape River. Nevertheless, if the four planned dams are built, 11,000 hectares will be permanently inundated. This includes more than 1000 hectares of protected Atlantic Forest, many caves under legal protection, agricultural plots, quilombola communities, riparian villages and urban centres (Bermann 2007). The Tijuco Alto reservoir will flood the cities of Cerro Azul and Adrianópolis in the Upper Ribeira in the state of Paraná. In the Medium Ribeira in the state of São Paulo, the reservoir of the Itaóca dam will flood parts of the quilombos Cangume and Porto Velho, the Funil dam will inundate the most fertile agricultural areas of the quilombo Praia Grande and the Batatal dam will flood parts of the quilombos Galvão, Ivaporunduva, Nhunguara, André Lopes, Sapatu, Castelano and Abobral (ISA 2002). Tijuco Alto in the Upper Ribeira is the only dam that will not inundate any quilombos, but quilombolas are likely to be affected by deteriorated water quality and altered river ecology, which pose risks to food security and the maintenance of the rich cultural heritage and biodiversity registered in the region (Sevá Filho et al. 2007, Bermann 2007, Andrade and Tatto 2013). Furthermore, if the Tijuco Alto dam is built, the Itaóca, Funil and Batatal dams will likely gain technical viability because of their relevance for flood control. Fearnside (2006) has referred to this phenomenon as the 'camel in the tent scenario': a Bedouin lets a camel put its head inside his tent during a sandstorm and wakes up the next day to find the whole camel inside the tent (Baptista and Thorkildsen 2010). In other words, once Tijuco Alto is built, it is likely that the other three dams will eventually be built as they are smaller and have the potential both to control river flow and to increase the overall installed capacity.

Due to the fear that one or more dams will be constructed on the Ribeira de Iguape River, quilombolas have joined forces with a large number of civil society actors, government agencies, researchers, politicians and other traditional groups and local people in defense of peoples' livelihoods and the local environment. In doing this, quilombolas have come to contest the dominant direction and meaning of development in Brazil and have proposed an alternative energy and development model for the Ribeira Valley, promoting the socio-cultural and biological diversity of the region.

1.2 Status of Knowledge

A wealth of research explores indigenous and traditional groups' struggles over access to and control over land and natural resources in Latin America (e.g. Carruthers 2008, Sundberg 2008, Leite 2015, Loloum and Lins 2012, Escobar 2012, Hooker 2005, Wade 1995, Penna-Firme and Brondizio 2007, Penna-Firme 2013, Farfán-Santos 2015, French 2006, 2009). These works highlight how such groups have claimed land rights and access to resources based on indigeneity/ethnicity grounds. Nevertheless, research on the construction of a quilombola identity by Afro-Brazilian groups has mainly been carried out by Brazilian anthropologists and most works are published in Portuguese (Schmitt et al. 2002, Arruti 2006,

Almeida 2002, O'Dwyer 2002, Oliveira Jr. et al. 2000, Leite 2008). Studies of quilombos published in English generally focus on hepatitis viruses and nutritional situation and overall health of quilombola populations (e.g. Reis et al. 2008, Alvarado-Mora et al. 2011). Outside Brazil, not much research has been done on the empirical reality of quilombos, but there is a recent shift of this trend with an emerging body of English published research on contemporary quilombola communities' struggles for recognition as right-holders in Brazil (e.g. Farfán-Santos 2015; Leite 2015; Loloum and Lins 2012; Penna-Firme and Brondizio 2007; French 2009b, Penna-Firme 2013). Still, few studies have approached quilombolas' identity construction and their struggles for rights and resources from an interdisciplinary angle. This thesis intends to contribute to the literature on quilombos by using an interdisciplinary approach to investigate a complex situation of rights, resources and identities. In this way, the thesis seeks to offer a multi-dimensional perspective on a multi-dimensional reality.

This thesis explores the struggles of quilombos in a region where few interdisciplinary studies have been carried out, particularly published in English. Queiroz (1983) was one of the first to undertake anthropological research on Afro-descendant communities in the Ribeira Valley, followed by (Carril 1995). Other social studies on quilombos undertaken in the Ribeira Valley include anthropological reports required by FCP/INCRA/ITESP for recognition processes of quilombos (e.g. Amorim 1998a, 1998b, Oliveira Jr. et al. 2000, Silveira 2003, Arruti 2003, Carvalho and Schmitt 2002); quilombos' land rights (Rapoport 2008, Giacomini 2010); and quilombolas conflicts with protected areas (Castro et al. 2006, Figueiredo 2000, Vianna and Adams 1995; Ferreira et al. 2001, Ferreira 2004, Oliveira 2004, Marinho and Furlan 2007, Silveira 2007, Rezende da Silva 2008, Silveira 2008). Ecological studies of quilombos include ecological assessments of the Atlantic forest structure (Moares et al. 2002, Fantini and Guires 2007, Alves and Hogan 2009, Fillipine-Alba and Filho 2010); and the use of shifting cultivation and agro-biodiversity in quilombos (Peroni and Hanazaki 2002, Prado et al. 2013). Few studies in the Ribeira Valley have integrated social and ecological dimensions of quilombos, and even fewer studies have taken political dimensions into account (Pedroso Jr. et al. 2008, Pedroso et al. 2009, Munari 2009, Adams et al. 2013). This thesis intends to contribute to fill this research gap by drawing attention to how construction of ethnic identities and the genesis of social movements by marginalised groups are intimately woven into political and environmental processes.

1.3 Objective and Research Questions

The main objective of this thesis is to investigate how quilombolas have responded to top-down conservation and development initiatives, and examine the challenges they have met when trying to realise their constitutional rights to land. The empirical focus on the Ribeira Valley provides insight into how quilombolas have been encroached by farmers and affected by strictly protected areas and how they have taken political action to legalise settlement and resource use inside their territories. Furthermore, studying quilombolas in the Ribeira Valley enables insight into how they have mobilised against the construction of dams and what the outcomes have been of resistance. The thesis' focus is hoped to provide a more comprehensive understanding of the complex reality of quilombolas and, in this way, influence decision-making that affects them. To address the overall research objective, I have outlined four specific research questions, each of which I attend to in a separate paper.

1. *How did quilombos' rights to land emerge and what debates and dilemmas have these rights invoked?*

In order to deal with this question, Randi Kaarhus and I examine the historical trajectory of quilombos' exclusion from land and how they have mobilised to get their rights to land recognised. Quilombos' land rights were enacted in the re-democratic Constitution of 1988, and almost three decades later, we investigate how quilombola identity and land titling processes are understood locally, while the context and procedures for the legal recognition of land rights are defined at the scales of the state and the federal government. We use the powers of 'regulation', 'force' and 'legitimation' from political ecology literature to analyse some of the obstacles quilombos encounter when claiming rights to land. Particular emphasis is given to 'exclusion's double edge' as aspirations for land access implicitly involve the wish for a degree of exclusionary power. In many instances, quilombos' land claims result in conflicts between quilombolas and established landowners and other powerful actors, but also among community members themselves holding different claims to the land.

2. *How have quilombolas responded to social-ecological changes in the Atlantic Forest and what is their role in biodiversity conservation?*

In order to answer this research question, different changes in the quilombo Bombas are analysed. Bombas is a traditional and geographically isolated quilombo in the state of São Paulo, and has its territory completely overlapped by the strictly protected area of the Upper Ribeira State Touristic Park (PETAR). The paper explores Bombas inhabitants' traditional resource use practices and social organisation at the time of settlement in the 1910s, and how these have changed according to four different events. These include; (1) the increased investment in the region in the 1930s–1970s, (2) the implementation of PETAR during the 1980s–1990s, (3) the process of constructing a quilombola identity and access to social programs in the 2000s, and (4) the negotiation over land rights with forest authorities from 2010 to 2013. Here, the adaptive cycle from resilience literature and insights from political ecology are used to identify linkages between social, historical, political and institutional changes over time. Special attention is given to how Bombas inhabitants' have contributed to shape and maintain the Atlantic Forest landscape and agro-biodiversity through past and present resource management practices.

3. *What are the spaces for and processes of negotiation over strictly protected areas overlapping quilombola territories?*

As a way to investigate how quilombolas have responded to the implementation of strictly protected areas, I examine the land claim of the quilombo Bombas, overlapped by the strictly protected area of PETAR. The quilombola association of Bombas entered a negotiation process with state actors in 2010 with civil society organisations as mediator and legal advisor. I draw attention to how claims for recognition of the ethnic identity of quilombola alongside distributional and participatory issues are central in Bombas residents' struggles for rights and resources against PETAR. The three-dimensional environmental justice concept, incorporating elements of recognition, distribution and participation, is employed to analyse the quilombola association's and forest authorities' competing claims to land and the practices and discourses they use in their struggle over Bombas.

4. *How have quilombolas politically organised and acted against hydropower dams on the Ribeira de Iguape River and what have been the outcomes of this resistance?*

To address this question, I analyse the rise and development of the Movement of People Threatened by Dams (MOAB) in the Ribeira Valley, which was kicked off by the

mobilisation of quilombolas with encouragement and support from the Catholic Church. Special attention is given to the construction of a quilombola identity and the claims and strategies for recognition as quilombos and land titles, access to social services and infrastructure, transparency of public agencies and private companies, and realisation of public hearings and prior consultations. By combining the three elements of environmental justice — recognition, distribution and participation — with scalar dimensions, I explore how quilombolas and a wide range of actors have come together in the struggle against dams and for a more socially and ecologically just development model.

1.4 Structure of the Thesis

This thesis is primarily based on four academic papers answering the four research questions. Of these, two have been published and two have been submitted to peer-reviewed journals. The four papers are included in Part II and the translated versions of the published articles are included as annexes. Part I provides an overarching approach to the thesis, setting the stage for the research and outlines theoretical and methodological approaches, results and broader conclusions of the thesis as a whole. The first section provides the background to the topic, stating the research objective and research questions as outlined above. The second part draws attention to the theoretical concepts used to analyse the research questions. These include a combination of concepts used in political ecology and environmental justice literature as well as the adaptive cycle from resilience theory. The integration of different theoretical concepts is intended to provide a more comprehensive understanding of quilombolas' resistance to top-down conservation and development initiatives and challenges they have encountered. The third section presents the research approach and study area. I outline the research design and case sites and provide a brief historical account of the occupation and development of the Ribeira Valley and the origin of the various quilombola settlements. As specific attention is given to the quilombo Bombas in the thesis, more emphasis is given to this community. I then go on to describe ethical considerations taken in the research and reflect on my own positioning as a researcher before I describe the methods used for data collection and data analysis. The fourth section consists of a summary of the four academic papers answering the four research questions. Finally, the fifth section synthesises the main findings presented in the four individual papers, showing their interconnectedness. An overall conclusion is then made based on the research findings taken as a whole.

2. CONCEPTUAL FRAMEWORK

The research objective concerns quilombolas' responses to different top-down conservation and development projects, threatening their access to land and livelihoods. As the four specific research questions involve issues of ecology, political economy, geography, anthropology and law, I have used an interdisciplinary approach. This means that I have relied on different methods and theories as a way to gain a richer comprehension of the complexity of quilombolas' struggles for rights and resources in the Ribeira Valley. An interdisciplinary approach means that research findings are interpreted and translated between different *sciences* or *paradigms* (Vedeld 1994). There are no standard models to guide interdisciplinary research, but there is a general understanding that some kind of knowledge integration and translation need to take place. According to Vedeld (2004), interdisciplinarity takes place

when efforts are consciously taken to develop a common language or set of concepts for distinct disciplines.

This thesis integrates concepts used in political ecology, environmental justice and resilience literature. Building on insights from political ecology, the first paper uses the concepts of 'regulation', 'force' and 'legitimation' to analyse processes of exclusion of quilombos from land ownership. The second paper combines the adaptive cycle from resilience literature and political ecology. This is intended to balance the often ahistorical and apolitical theory of social-ecological resilience and the often limited focus on ecological dynamics in political ecology. The third paper employs the three dimensions of environmental justice – recognition, distribution and participation – to investigate how different claims have played out in a negotiation process over a quilombola territory overlapped by a protected area. Although not explicitly stated, this paper draws on critical insights from political ecology to analyse issues of participation, discourses and power relations operating in the negotiation process. Also the last and fourth paper uses environmental justice dimensions when investigating how the anti-dam movement in the Ribeira Valley has organised and mobilised across scales. Here, attention to how claims have been framed and articulated draws on insights from political ecology. All the papers address the issue of Afro-descendant communities' construction of a quilombola identity and claims for recognition as a way to secure land rights and local control over natural resources, but from different angles. The thesis' integration of different theoretical concepts from different research fields in new ways is hoped to contribute to development of theory at the interface between political ecology and environmental justice, and at the interface between resilience and political ecology.

2.1 Cross-Fertilisation Between Political Ecology and Environmental Justice

The field of political ecology had its inception in the 1970s when mainly anthropologists and geographers from the global north set out to study land managers and land degradation in the rural global south (Wolford and Keene 2015). Political ecology has been defined as a field combining 'the concerns of ecology and a broadly defined political economy' (Blaikie and Brookfield 1987:17) and developed as a response to the perceived apolitical nature of existing environmental research at the time (Bryant 1998, Peet and Watts 1996). During the first wave of political ecology studies, many scholars used political-economic structural analysis from neo-Marxism to advance concepts of class, inequality and state-market forces to explain local environmental degradation and social marginalisation (Bryant and Bailey 1997). Pierce Blaikie´s book *Political Economy of Soil Erosion* (1985) is often considered a pioneering work of neo-Marxian development critique and one of the foundational texts of political ecology. In this work, Blaikie linked social oppression and environmental degradation on the ground in Nepal to wider political concerns related to production questions (Bryant 1998). Blaikie also problematised the quality of environmental data on soil erosion, demonstrating that production, interpretation and use of environmental data was inherently political. This was further developed in Blaikie and Brookfield's (1987) *Land Degradation and Society*. By highlighting the different perceptions of land degradation by different actors, the authors argued that degradation was not only a physical process, but interacted with human perceptions, biases and interests.

In addition to soil erosion, deforestation has been the focus of much political ecology research. Bunker (1985), Hecht and Cockburn (1989) and Schmink and Wood (1992) have all

provided rich empirical data on how political struggles, economic interests and ecological change have come together in the exploitation of the Brazilian Amazon. These studies did not only focus on political economic relations, but also examined the history of colonialism and post-colonialism and the different powers controlling the access and use of resources as a way to illuminate contemporary patterns of human-environment interactions in Brazil. In Hecht and Cockburn's (1989) *Fate of the Forest*, local deforestation was traced to macro-level political-economic factors that motivated those who cleared forest to create pasture for cattle ranching, including subsidies and rents provided during the dictatorship regime. These findings thus served to challenge dominant interpretations of causes and solutions of deforestation, often blaming the 'victims' and proposing restrictions on their resource use practices. By demonstrating how environmental knowledge and social and economic values influenced each other, early political ecologists disputed the often apolitical work by many cultural ecologists and neo-Malthusian writers explaining environmental change with poor land management and over-population (Paulson et al. 2003, Bryant 1998)

In the mid-1990s, influence from post-structuralism, post-colonialism and feminist studies opened political ecology for research on ethnic identities, gender, institutions, governance apparatuses, political involvements and other factors conditioning knowledge, decisions and actions of diverse land managers (Paulson et al. 2003). Post-structuralism laid the ground for the study of the political origin and institutionalisation of environmental knowledge, especially the role of environmental discourses and narratives (Leach and Mearns 1996, Fairhead and Leach 1996, Hajer 1995). By showing how different actors perceived and identified environmental problems and made claims, political ecologists argued that dominant discourses influenced material implications for less powerful social groups (Forsyth 2008, Stott and Sullivan 2001, Escobar 1996, Bryant and Bailey 1997). The role of unequal power relations in constituting a politicised environment thus became a central topic of study, where power both in struggles over material resources (access and control over resources) and in struggles over meaning (understanding of concepts such as erosion, deforestation or participation) were investigated (Bryant 1998, Escobar 1998, Benjaminsen and Robbins 2015).

Although many political ecologists have examined global political-economic influences on the ground, there has also been a focus on contestation from the perspective of those who have been impoverished, excluded or exploited (Forsyth 2008, Wolford and Keene 2015). Human agency did also start to receive increased attention in the mid-1990s and different scholars have investigated how marginalised groups have responded to power exercised by the state, elites or corporate actors (e.g. Peet and Watts 1996, Hall et al. 2011, Cavanagh and Benjaminsen 2015). Different forms of resistance have been examined; from everyday resistance (Scott 1985) to environmental mobilisations and the formation of social movements where marginalised groups' potentials to influence political outcomes have been stressed (Peet and Watts 1996, Escobar and Alvares 1992, Guha 1994, Peluso 1992, Nygren 2004). The focus on local peoples' struggles over resources has, among others, provided insight into how processes of resistance and mobilisation have given rise to new identities, which has been important for the examination of the complex ways people establish and challenge rights to land access, for instance through claims based on indigeneity/ethnicity (e.g. Escobar and Alvares 1992, Li 2004, Penna-Firme 2013).

From its inception, political ecology has been concerned with complexity and in offering theoretical thickness, but as it holds many intellectual and ideological differences, it is a

research field without a coherent theoretical approach, methodological framework or message (Walker 2006, Bryant and Bailey 1997). Still, the literature classified under the rubric of political ecology is united by a common focus on power in environmental governance and the co-production of environment and society with a wider political economy (Benjaminsen and Robbins 2015). The aim of much political ecology work is to challenge conventional wisdom leading to flawed policies, and to frame environmental analysis and policy toward addressing the problems of socially vulnerable people (e.g. Forsyth 2008, Editorial 2004, Bryant and Bailiey 1997, Blaikie 1985, 2008). Generally, both theory and practice of political ecology are shaped by concerns for marginalised groups and issues of social justice, taken to the forefront in publications such as *Liberation Ecologies* (Peet and Watts 1996, 2004), *People, Plants and Justice* (Zerner 2000) and *The Environmentalism of the Poor* (Martinez-Aliér 2002). However, the actual engagement with public debate outside the academy and practical problem-solving has been limited (Walker 2006). Although some political ecologists are deeply immersed professionally and intellectually in applied policy, issues of justice have generally not been treated explicitly as is the case of much environmental justice research.

While political ecology started off investigating land managers and marginalised groups in the rural global south, the concept of environmental justice had its inception in the urban global north (Holifield 2015). Environmental justice grew out of the civil rights movement in the United States (US) in the 1960s and the environmental racism debates in the 1970s (Bullard and Wright 1990, Schlosberg 2007). At this time, grassroots groups began to organise against coloured and low-income populations' disproportionate exposure to toxic and hazardous pollution in their jobs and neighbourhoods. The protests against the filling of a landsite in the Love Canal in the 1970s and toxic dumping in the Warren County in 1982 are considered some of the first cases of environmental justice activism (Urkidi and Walter 2011, Pulido 1996). The first wave of environmental justice studies were carried out by activists' academic allies in sociology and related disciplines who investigated the extent of environmental injustice throughout the US, focusing on impacts of toxic and polluting facilities on human health (Holifield 2015). Environmental justice research was from the start mainly empirical and activist, with little focus on development of theory.

Environmental justice thus emerged in a different geographic setting than political ecology, it had a different research focus, but it also had a different purpose (Holifield 2015). While political ecology grew out of a desire to understand the political nature of environmental change and social marginalisation (Paulson et al. 2003), environmental justice sought to mobilise activism and shape policy and law. The intention of environmental justice research was to document disproportionate exposure of marginalised groups to polluting facilities as a way to influence legislators, policymakers and specific legal cases (Holifield 2015). For instance, Robert Bullard's (1983) classic work *Solid Waste Sites and the Black Houston Community* was used to support plaintiffs in a lawsuit. Other important early environmental justice studies include a regional analysis of hazardous waste sites by the US General Accounting Office (1983) and a national analysis of toxic sites by the Commission for Racial Justice at the United Church of Christ (1987). These studies provided empirical support for environmental justice activists' allegations of low-income and minority groups' disproportionately higher health and environmental risks than other social groups (Walker and Bulkeley 2006). Based on the reported correlations of waste sites with race and income, the US government and some state legislatures established policies to address environmental inequity (Holifield 2015, Towers 2000).

The second wave of environmental justice studies disputed the conclusions of the first wave, which had claimed that environmental inequities occurred on a national or state level. Researchers, often sponsored by the private sector, used different units of analysis and different research frameworks to question the market-based origin of problems. Alternatively, these studies argued that environmental disparities derived from impersonal market forces, making both the problem and solution local (Williams 1999). Both industries and low-income people tended to choose areas of low rent and were therefore situated close to each other. It was also argued that low-income people opted to live close to their jobs at factories, and their higher exposure risks were therefore a matter of personal choice. Subsequent research challenged the sceptics and the debate focused on methodology rather than development of theory. Pulido (1996, 2000) was an exception, looking at how issues of race and hegemonic power relations conditioned distribution of environmental risks. By drawing attention to processes of structural exclusion of affected people and the extra-local scales implicated in the creation of the problem, Pulido tried to correct the focus of market-based theories, separating economics from race and gender issues.

Although both political ecology and environmental justice have been concerned with distribution of environmental inequalities and issues of justice, these fields only started to cross-fertilise in the 1990s. Holifield (2015) outlines some developments in environmental justice research, which laid the ground for more explicit engagement with political ecology. These include environmental justice research's increased attention to; i) issues of recognition and participation, ii) constructivist social movement theory and conceptions of discourses and iii) 'environmentalism of the poor' in the global south. These three developments will be elaborated upon below.

The first point of convergence was the increased attention to recognition and participation. Initially, environmental justice research had focused on environmental inequities and distributive issues, but this started to change when Iris Marion Young (1990) published her book *Justice and the Politics of Difference.* Young is a feminist social justice scholar who resurrected the interest in normative theories of social justice. Young criticised the way distributive (or liberal) theories of justice, as promoted by John Rawls (1971) and others, considered goods as static, rather than as results of different social and institutional relations. She pointed to the importance of paying attention to the underlying causes generating and sustaining injustice, such as power relations, discourses and institutional configurations. She argued that the lack of recognition of group differences in the social and political spheres was part of the reason for unequal distribution, and only when recognised could socially marginalised groups get access to critical resources. Another feminist social justice scholar, Nancy Fraser (1998, 2000), was also influential in developing the argument for recognition as a key dimension of social justice. Fraser further contended that culture was a legitimate terrain of struggle – 'a sight of justice in its own right and deeply tied to economic inequality' (2000:109). Both Young and Fraser went on to highlight the direct link between a lack of recognition and procedural justice where procedural justice refers to fair and equitable institutional processes. They argued that recognition of marginalised groups pave the way for participation in decision-making on distribution of resources. Inspired by these social justice scholars, Schlosberg (2004, 2007) extended recognition and participation from normative theories of social justice to the environmental justice framework, making up a three-dimensional framework connecting elements of distribution, recognition and participation.

Since then, distribution has been downplayed in environmental justice research and recognition in the social, cultural and institutional realms has received increased attention. As pointed out by Urkidi and Walter (2011), recognition covers the issue of collective identities and ethnic differentiated groups' needs, concerns and livelihoods (Urkidi and Walter 2011:685). This type of recognition is particularly relevant to indigenous peoples and quilombolas in Brazil who have their rights to land and culture inserted in the Brazilian Constitution. These groups have also obtained international legal safeguards and they frequently use their ethnic-based rights to mobilise against the forces that 'threaten to fragment them, displace them and drive them toward cultural disintegration' (Carruthers 2008:10). The incorporation of 'recognition' and 'participation' into environmental justice analysis made it approach political ecology, which had long been concerned with the emergence of new identities and claims for recognition and meaningful participation as important elements in struggles over resources (e.g. Escobar 1998, Li 2004, Penna-Firme and Brondizio 2007, Hickey and Mohan 2004). Furthermore, political ecology has drawn attention to how attempts to recognise the views promoted by some can lead to exclusion of other voices that are 'misrecognised', pointing to heterogeneity of groups and internal conflicts (Peet and Watts 2004, Hall et al. 2011).

The second point of convergence between political ecology and environmental justice was the extension of constructivist social movement theory to environmental justice movements. Based on Goffman's (1974) frame analysis, Snow et al. (1986) argued that traditional social movement theory had overlooked interpretive schemes as catalysts for mobilisation. Shortly after, Čapek (1993) developed an 'environmental justice frame', which changed environmental justice studies on movement groups. A shift of attention took place from patterns of environmental injustices to how communities and movements responded to environmental injustices, particularly how they translated these patterns into grievances, attributed blame and advocated remedies (Taylor 2000, Kurtz 2003). Efforts were then made to understand strategies, dynamics and actions of movements and policy actors, which had been the focus of indigenous and peasant movements studied under the lens of political ecology (Holifield 2015). Since the mid-1990s, political ecologists had analysed discourses and narratives that frame contestation over natural resources and in situating these within broader structural relationships. However, most political ecology studies of marginalisation, contestation and resistance, which are crucial for understanding social movements, have generally been analysed at the level of individuals, households, communities, groups or organisations (Wolford and Keene 2015). One of the reasons pointed out by Wolford and Keene (2015) for few social movements having been studied through a political ecology lens is that social movements have generally been associated with sociology in the US and the UK, where most political ecology scholars originate.

The third point of convergence between political ecology and environmental justice was the geographical exchange between the two fields (Holifield 2015). Guha and Martinez-Alier (1997) were some of the first researches to explore the links between the US environmental justice movement and the environmental mobilisations in the global south that had been studied by political ecologists. Based on this work, Martinez-Alier (2002) outlined the concept of 'Environmentalism of the Poor', which manifested itself through socio-environmental conflicts involving impoverished peoples struggling against the state or against private companies that threatened their livelihoods, health, culture and autonomy. The Chipko movement in the Himalayas in India in the 1970s and the movement of the rubber-tappers in Brazil in the 1980s, with its charismatic leader Chico Mendes, represent two emblematic

cases of 'Environmentalism of the Poor'. By showing that environmental injustices also took place in the global south, links were made with struggles in the global north. By the turn of the millennium, US activists and scholars travelled to the global south to disseminate their experiences and to establish collaborations with local organisations. This resulted in an expansion of the environmental justice movement and research extended from the urban US to the rural global south, which had been the primary interest of political ecology (e.g. Schroeder 2008, Holifield et al. 2009, Carruthers 2008, McDonald 2009, Sneddon and Fox 2008). At the same time, political ecologists started to pay more attention to urban settings and the global north (e.g. Robbins 2007, Benjaminsen and Robbins 2015).

Representatives from different US environmental justice movements and scholars visited Brazil for the first time in 1998, leading up to the first international colloquium on environmental justice in Latin America being held in Brazil in 2001(Acselrad 2008, Urkidi and Walter 2011). Shortly after, in 2002, the Brazilian Network on Environmental Justice (RBJA) was launched (Acselrad 2008). The conceptual environmental justice debate in Brazil was very much concerned with how post-colonial patterns and the dominant capitalistic development model — that concentrate economic and political power — have affected local people and environments (Porto 2012). The appropriation and framing of environmental justice in Brazil resonates with the traditional concerns of political ecology of access to natural resources, recognition of collective identities, empowerment of social groups like indigenous peoples and Afro-Brazilian *quilombolas*, recognition of alternative visions of development and procedural and participative issues (Acselrad 2008). In Brazil, some environmental justice research has been carried out by different Brazilian and foreign scholars, but this scholarship remains in its infancy (e.g. Wolford 2008, Souza 2008).

Political ecology and environmental justice have increasingly cross-fertilised over the last decade, but these research fields continue to hold different strengths and I therefore argue that they benefit from integration. On the one hand, political ecology could benefit from more explicit engagement with environmental justice research on the issue of scale as an object of analysis (e.g. Towers 2000, Williams 1999, Kurtz 2003, Urkidi and Walter 2011). Many political ecologists have extensively engaged with scale as a methodological question, but only a few have used 'politics of scale' as an analytical focus, emphasising the social construction of scales and the importance of using multiple scales to achieve environmental justice claims (Perrault 2003, Brown and Purcell 2004). Also, few political ecologists have studied social movements despite having been argued to be the primary vehicle for long-term progressive change (Escobar 2012, Peet and Watts 2004). Analysis of movement demands and strategies by environmental justice scholars could therefore inspire more political ecology research on social movements. Furthermore, on issues of differential effects of policies and environmental processes, political ecology could gain from more engagement with environmental justice. Lastly, political ecology could benefit from environmental justice's experience with advocacy and explicit treatment of justice.

On the other hand, environmental justice research could gain from more explicit involvement with political ecology on the issue of recognition, especially processes of constructing ethnic identities and claims for official recognition. Political ecology's attention to different claims and stands within groups could also help environmental justice scholars avoid simplified representations of communities, the government or other units. Moreover, on the aspect of participation, environmental justice research would gain from more engagement with political ecology's critical literature on participation and underlying power dynamics in different

arenas of struggle. As environmental justice research focuses more on *procedure* than *participation,* it seldom integrates critical insights on participation and does therefore not pay sufficient attention to issues of power. Political ecology's study of discourses could also be beneficial for environmental justice studies of movement framings and articulations.

My choice of linking political ecology and environmental justice has been inspired by the Brazilian context. In this thesis, political ecology offers a critical perspective on biodiversity conservation and the problematic relationship between quilombola communities and strictly protected areas. By stressing the importance of small-scale disturbances of the Atlantic Forest caused by shifting cultivation practices, I show how both human and non-human actors have the power and potential to produce agro-biodiversity in line with the findings of other studies (e.g. Adams et al. 2013, Beymer-Farris 2013). Furthermore, I draw attention to how dominant discourses and different powers have worked to exclude quilombolas from land ownership, from protected areas and from meaningful participation in a negotiation process and in decision-making processes on dams. Political ecology's attention to internal differences within groups is also of importance to the thesis as struggles over resources not only reflect tensions between groups but also within groups. Environmental justice has been useful to illuminate quilombolas' claims for recognition, participation and distribution as raised in the negotiation process over territorial rights of Bombas as well as in MOAB's contestation of dams. Insights from environmental justice have also been useful in analysing MOAB's use of different scales for framing, mobilisation and action. In the individual papers of this thesis, I have used a selective engagement with the political ecology and environmental justice literature. A political ecology approach is predominant in Paper 1 and Paper 2, but I also touch upon the concepts of environmental and social justice. An environmental justice approach is predominant in Paper 3 and Paper 4, but the analysis draws on power and critical views on participation and recognition from political ecology.

2.2 The Adaptive Cycle

In addition to issues of recognition, participation, distribution, politics and power, it is important to consider ecological processes in this thesis. This is because the ecological resources and services that are available at a given time and place influence the alternatives that are available to people, and these again influence the politics, economics, management and struggles over natural resources. Ecological change, whether independent of, influenced or controlled by human action, alters the types of contestation over ecological resources that can occur (Peterson 2000). Although both political ecology and environmental justice research address environmental issues and struggles, much recent literature do not analyse ecological processes *per se.* Early political ecology research, however, did engage with rigorous natural sciences (e.g. Blaikie 1985), but the trend has been to favour considerations of politics over ecological dynamics (Bryant and Bailey 1997, Paulsen et al, 2003, Walker 2005). The increased attention to discursive and interactive aspects of human knowledge and action since the 1990s has given rise to concerns that 'the environment' is disappearing from political ecology research (e.g. Vayda and Walters 1999, Zimmerer and Bassett 2003).[12] Since Paper 2 investigates changes in agro-biodiversity and forest cover of the territory of Bombas

[12] There are, however, exceptions to this where ecological methods and concepts have been used to study biophysical events, complimented with social, political and economic analyses (e.g. Zimmerer 2000, Forsyth and Walker 2008).

over time, I have chosen to combine insights from political ecology with ecological resilience theory – more specifically, the theory of the adaptive cycle – to invigorate the ecological analysis (Beymer-Farris 2013).

The adaptive cycle (Figure 3), also referred to as the adaptive renewal cycle, illustrates how ecosystems cope with and adapt to change. The adaptive cycle was first developed by Crawford Stanley Holling (1986) as a way to explain ecosystems' multi-equilibrium dynamics and cyclical nature. According to the adaptive cycle, an ecosystem is initially colonised by pioneer species, which are characterised by rapid growth and extensive dispersal ability (exploitation – r). With time, competition for space and light increases and many of the pioneers are outcompeted by species with slower growth rates and a few species become dominant. The ecosystem thus proceeds slowly to a climax community generally occupied by larger and fewer species (conservation – K). During the progression from r to K, biomass is gradually accumulated, stability increases, variability and diversity decreases, and there is a diminished likelihood that novelty will arise. When a disturbance event occur (either naturally in the form of lightning, wind, fire, drought or insect pest, or human-induced such as the setting of fire onto a forest patch), ecosystem energy and nutrients are released (Ω). This may result in some attributes of the system being lost, but surviving species in the affected area (biological legacies) and species from other areas (mobile links and support areas) re-colonise the disturbed area (Berkes et al. 2003). The release phase is thus followed by a period of reorganisation (α) during which innovation and adaptation can take place. The system proceeds rapidly from release to reorganisation before returning to the growth phase, where the system settles into a new trajectory (Holling 1986).

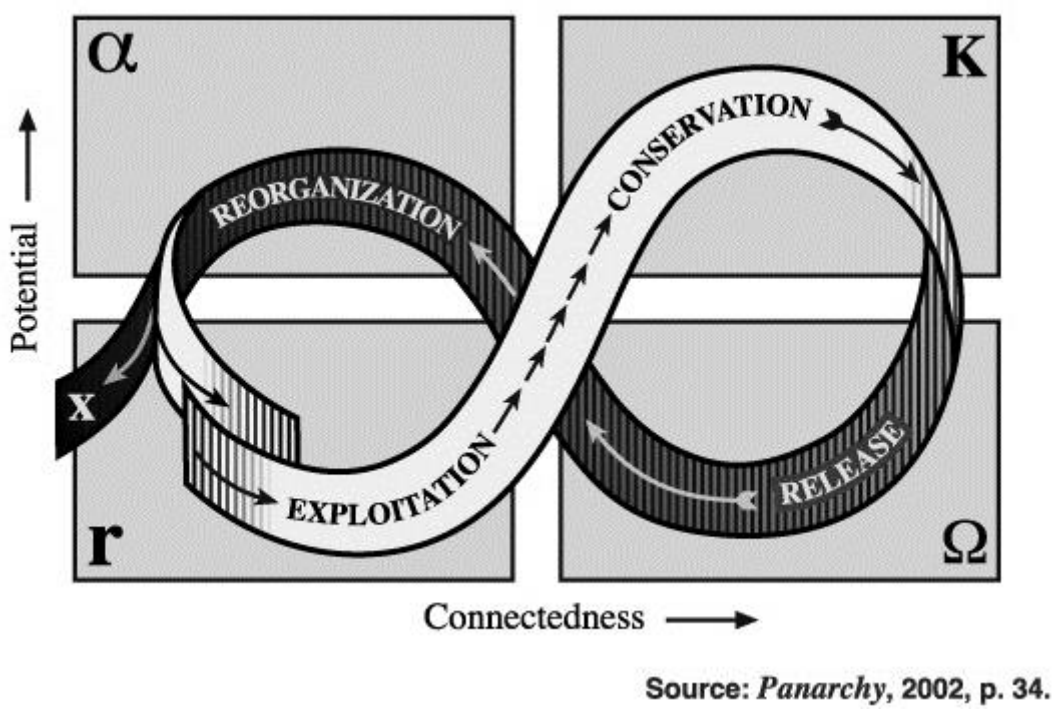


Figure 3: The adaptive cycle, embracing two opposites; growth and stability on the one hand (front loop: from r to K) and change and variety on the other (back loop: from Ω to α). The arrows show the speed of the flow and the 'x' is the exit of the cycle, referring to lost properties of the system (Source: Gunderson and Holling 2002).

An agricultural plot in the Brazilian Atlantic Forest is a good example of an ecosystem going through the adaptive renewal cycle. The period encompassing the exploitation and conservation phases corresponds to the period when the forest plot is left fallow. The fallowed plot is colonised by growth from previously suppressed vegetation, germination of seeds stored in seed banks and dispersal of propagules from distant places by the wind, birds or mammals. A high diversity of pioneer species establishes (r), but as time passes, fewer and more slow-growing species are favoured (K). During fallow periods, the vegetation cover transforms from a recently cleared area (*soca*) to initial regeneration (*tigüera*), young regeneration (*capoerinha*), medium regeneration (*capoeira*), advanced regeneration (*capoeirão*) and, ultimately, mature or 'virgin' forest (*mata virgem*). The release stage (Ω) takes place when the largest trees are cut in a plot that has been left fallow for some time and fire is set, releasing energy and nutrients. The reorganisation phase (α) begins when it rains, when the ashes penetrate and enriches the soil (Forsyth and Walker 2008). Calcium and magnesium increases in the soil whereas aluminium decreases, improving the soil fertility (Begossi 1995). Nutrients are in this way recycled and there is limited need for chemical pest control. The plot is then ready for planting of seeds of different crops (r). Generally different crops are cultivated together, such as maize and beans to fix nitrogen. Crops grow and when mature (K), are harvested (Ω). The plot can then be re-planted with the same or different crops or left fallow, initiating a new adaptive cycle.

The theory of the adaptive cycle, focusing on ecosystems' cyclical patterns, instability and multi-equilibrium, is a sharp contrast to classic ecological notions of linearity, stability and single-equilibrium that underlie many popular narratives of environmental change and crisis. Environmental policies and interventions that intend to prevent and control change – such as 'fortress conservation' – have often been justified by using equilibrium, or 'balance of nature' arguments (Forsyth 2008, Zimmerer 2000). However, protection policies that restrict livelihood activities, such as small-scale shifting cultivation, ignore the role of humans in directing change and in shaping diversity. Following the same line of thought as the adaptive cycle theory – which emphasises that change and disturbance are natural components of ecosystems that promote renewal processes and diversity – many political ecologists have argued that small-scale disturbances (including those produced by humans) can be something productive rather than destructive (Gomez-Pompa and Kaus 1992, Adams 1997, Escobar 1999, Zimmerer 2000, Neumann 2004). Based on this, such scholars claim that multi-equilibrium views about ecology may promote local traditional resource management practices as both ecologically and developmentally more feasible than strict protection.

Although ecological resilience theories outline how ecosystems adapt to and cope with change and uncertainty, few resilience studies have examined the role of small-scale disturbances caused by human actors (Beymer-Farris 2013). The reason for this is that the adaptive cycle was initially developed to analyse ecological processes. Although the adaptive cycle has later been developed to analyse integrated social-ecological systems and adaptive management (Seixas and Berkes 2006, Gunderson and Holling 2002, Widlock *et al.* 2012), the social science component is still relatively weakly developed. Brown (2014) argues that society is often represented as a closed system that is disturbed by external or exogenous forces and, thus, underplays internal, endogenous forces and social dynamics. Furthermore, societies and stakeholders are often portrayed as homogenous and harmonious entities within the resilience literature, not recognising conflicts over resources. The social-ecological resilience approach, upon which the adaptive cycle builds, has

also been criticised for being ahistorical and for not sufficiently addressing social justice, human agency, power relations and the role of politics in shaping resource access, use and control (Turner 2008, Davidson 2010, Beymer-Farris et al. 2012, Beymer-Farris 2013, Leach 2008, Peterson 2000, Brown 2014).

The weaknesses of social-ecological resilience are the strengths of political ecology, but only recently has there been efforts to integrate these approaches (e.g. Bymer-Farris et al. 2012, Beymer-Farris 2013). Building on this literature, I have chosen to integrate the adaptive cycle with insights from political ecology in Paper 2. Attention to history and the inclusion of a time dimension in the adaptive cycle was crucial for linking the social-ecological system of Bombas to its past and its present as well as to outline future scenarios. In doing this, not only the exit point of the adaptive cycle was emphasised, but also the entrance point into a new adaptive cycle. The depiction of Bombas as two consecutive linked cycles is different from the general portrayal of social-ecological systems as being more or less closed. The attention to power relations among actors and social dynamics was important for the understanding of how the community of Bombas has been affected by external and internal forces, and how inhabitants have socially and politically reorganised and constructed a quilombola identity as a way to claim citizenship and land rights. The combination of the adaptive cycle from resilience literature with political ecology also facilitated the investigation of the historical and contemporary role of humans and non-human actors in shaping the Atlantic Forest (Robbins 2012, Beymer-Farris 2013). While the use of adaptive cycle theory provided insight into patterns of disturbance and reorganisation, political ecology's explicit focus on history and power relations was key to understanding how claims over natural resources have been made and contested.

3. RESEARCH APPROACH AND STUDY AREA

3.1 Research Design

The research design for this thesis has been shaped by a reflexive process operating through every stage of the research. This means that elaboration of the research objective, research questions, the choice of use and development of theory and collection and analysis of data have been going on simultaneously, where each component has influenced the others (Maxwell 1996:2-3). As the research has progressed, the research objective and questions have been refocused, new theoretical approaches have been incorporated and new data has been gathered. This is in line with Maxwell (1996) who argues that qualitative research design does not begin from a fixed starting point or proceed through a determinate sequence of steps, but is an iterative process. Due to the non-linear nature of interdisciplinary research, I have used an interactive research design, allowing for interactions between the research objective, conceptual context, research questions, methods and validity. Other components that are not part of the research design but influence it are resources, research abilities, perceived problems, ethical standards, the research setting and the obtained data (Maxwell 1996:6).

The thesis has used a case study approach to investigate quilombolas' responses to top-down conservation and development projects in the Ribeira Valley, Brazil. Case study has been described by Gerring (2004:342) as 'an intensive study of a single unit for the purpose of

understanding a larger class of (similar) units'. Case study thus promotes both in-depth and rich understanding of different phenomena, and allows for comparisons with similar phenomena elsewhere. So, while case studies can contribute to original research on a phenomenon that is little known, it can also contribute to development of theory. The scarcity of English publications of quilombolas' struggles in Brazil and the general lack of interdisciplinary studies of quilombos make the case interesting in itself. The conceptual approaches used in this thesis are not new *per se*, but the combination of perspectives from political ecology, environmental justice and the adaptive cycle from resilience literature offers novel ways of understanding quilombolas' natural resource use practices, their construction of an ethnic identity and their claims and strategies for recognition, land titles, access to resources and participation in decisions affecting them. Although focusing on quilombolas' struggles for rights and resources in the Ribeira Valley in response to threats posed by the dual process of environmental conservation and economic development, the thesis contributes to knowledge on nature-human interactions, ethnic identity construction and the rise and development of social movements relevant for other marginalised groups in other parts of Brazil and elsewhere in the world.

The selection of case sites was influenced by the issues at stake in the Ribeira Valley and the timing of the fieldwork. As a way to get insight into quilombolas' responses to strictly protected areas – the conservation component of the thesis – I chose to undertake research in the quilombo Bombas in the municipality of Iporanga.[13] This quilombo is considered the most traditional community, most forsaken and less researched in the state of São Paulo. Bombas is overlapped by PETAR, the first established protected area in the state of São Paulo and often considered the 'jewel in the crown' by forest authorities. Forest authorities had just started to conduct research inside PETAR for its long-awaited management plan and were eager to collect data inside Bombas. The first of many negotiation meetings between the quilombola association of Bombas and the state had taken place in January 2010. The initiation of fieldwork for this thesis in August 2010 thus provided an ideal timing for studying a negotiation process over land rights between a quilombo and state authorities. Being the most geographically isolated quilombola community in São Paulo, Bombas also provided a unique opportunity to get insight into traditional agricultural and livelihood practices, which have lost relevance in other more accessible quilombos in the Ribeira Valley. In order to get insight into quilombolas' responses to dam proposals – the development component of the thesis – I chose to conducts a more general study of the quilombos in the municipalities of Eldorado and Iporanga, as the anti-dam movement MOAB involved community members principally from these municipalities. Although no dams have so far been constructed on the Ribeira de Iguape River, people continue to be concerned that the privately-owned aluminium company CBA will get a preliminary license for the Tijuco Alto dam. The federal licensing environmental agency (IBAMA) emitted a favourable opinion to the dam project in 2008, and the Palmares Cultural Foundation issued a favourable opinion in 2012. During data collection, from 2010–2013, MOAB celebrated its 20 years of resistance.

The case of quilombolas' struggles for rights and resources has thus been approached through an intensive study of the quilombola community of Bombas as a way to get insight into the inhabitants' resistance to strictly protected areas, and a broader study of quilombola resistance to dams in the municipalities of Eldorado and Iporanga. Conflicts over land, both between quilombolas and third parties and among community members themselves, are also linked to

[13] Iporanga is a Tupí-Guarani word for 'beautiful river', referring to the Ribeira de Iguape River.

quilombolas' struggles over resources, and were investigated in Bombas and other quilombos in the Ribeira Valley. Attention to place, at the local scale, enabled insight into how territories have been occupied and used and how identity has been constructed through quilombolas' livelihood and cultural practices and their struggles. 'Place' is where the conditions of exploitation and marginalisation are shaped, but also where collective action can be formed. Political ecologists have been influential in developing the conceptualisation of how identity and place are linked and how they are constantly (re)created through material and political practices that mutually condition one another (Escobar 2012, Li 2004). The focus on place is particularly visible in studies of indigenous and traditional peoples, including quilombolas (e.g. Penna-Firme 2013, Loloum and Lins 2012, Farfán-Santos 2015, French 2009). Environmental justice research is also concerned with place as struggles for environmental justice are rooted in the scale of everyday experience (Towers 2000). Furthermore, the adaptive cycle is often used to analyse how local resource uses and ecological processes influence each other (Holling 1986). Nevertheless, although activities might be place-based it does not mean that they are place-bound (Massey 1994). Guha and Martinez-Alier (1997) point out that while people on the ground are affected by decision-making at higher levels, they are not passive recipients, but rather, use global environment and development ideas in local struggles in ways that sometimes have larger impacts. Based on this reasoning, the thesis addresses both smaller scales to examine how local practices and struggles influence ecological and political-economic processes, and vice versa: how ecological and political-economic processes influence a particular place. This helps to situate quilombolas' struggles in a particular historical and geographical location without neglecting the broader global processes within which they are constituted.

The case study of this thesis incorporates what Ragin (1992) refers to as nested cases, varying both in specificity and by scale. The quilombo Bombas has been used as a specific empirical unit while the Ribeira Valley has been used as a general empirical unit (Ragin 1992). The use of different empirical units has offered an opportunity to study specific processes in different settings. Furthermore, empirical data in this thesis has directed the selection of relevant scales to answer the four research questions. For instance, Paper 1 addresses multiple scales (from national to local), Paper 2 focuses mainly on the local scale, Paper 3 addresses both the local and the state level and Paper 4 deals with multiple scales (from local to global). However, it is important to bear in mind that the local, state, national and global scales that we might take as naturally inscribed in the landscape, are in fact human constructs that reflect and refract social relations (Smith 1984, Jones 1998). As outlined by Towers (2000), scale is both socially produced by struggle and productive in the terrain of struggle. Scale is *socially produced* in the struggle to define the spatial scope where some dominant groups exercise power, but it also leaves open the possibility of political action and opposition to power. Again, scale is *socially producing* as it is continually reorganised through a political project. Scale provides resources for political and social activities, where groups without resources tend to bring their claims before different publics at different scales (e.g. quilombolas) while groups with capital tend to try to keep conflict at the local level (e.g. private companies, powerful landowners, state authorities) (Williams 1999). The ability to shift between scales is important for local communities and social movements to achieve their claims and multiple scales become arenas for resistance. On the other side, powerful actors seek to constrain this access (e.g. the agribusiness lobby in Paper 1, forest authorities in Paper 2 and Paper 3 and the privately-owned CBA and the governmental licensing organ IBAMA in Paper 4). The individual papers, which analyse different aspects of quilombolas' struggles for rights and resources, are examples of nested cases.

3.1.1 Case Sites: The Ribeira Valley and the Quilombo Bombas

The Ribeira Valley is delimited by the hydrographic basin of the 470 km long Ribeira de Iguape River, running through the states of Paraná and São Paulo before entering the Atlantic Ocean (Figure 4). The Ribeira Valley covers an area of 2.830.666 hectares, which embraces 31 municipalities – 9 in the state of Paraná and 22 in the state of São Paulo – and hosts a population of about half a million people (Santos and Tatto 2008). The poor infrastructure and lack of political support has turned the region into an island of stagnated economy and development in the richest state of Brazil (Coelho and Favareto 2008, Hogan et al. 1999, Castro et al. 2006). Then again, it hosts the largest and best-preserved remnants of Atlantic Forest and the second highest concentration of caves in Brazil, both with a high number of endemic species. Furthermore, the Valley holds a large number of archaeological sites and the rich estuarine lake complex of Lagunar with one of the largest extensions of mangroves on the planet (Begossi 1998). Beside its natural richness, the Ribeira Valley is a region of high socio-cultural diversity being the home to European, north-American and Japanese immigrants and a number of traditional communities, including twelve indigenous communities, 80 traditional *caiçara* fishing communities and 88 quilombola communities (Diegues 2007, Andrade and Tatto 2013). In 1999, the Ribeira Valley became officially recognised as a UNESCO Heritage site based on its environmental, historical and cultural diversity (Ferreira 2004).

Figure 4: Map of the hydrographic basin of the Ribeira de Iguape River, showing the river in blue and the location of Iporanga and Eldorado in the state of São Paulo (Source: ISA, 2008).

The diversity that characterises the Ribeira Valley is connected with the Ribeira de Iguape River that was used as a means of transportation for the first European colonisers, mainly Portuguese and French, who settled in the area already in 1500. The coastal villages of Cananéia and Iguape served as the main centres, and are considered some of the first

European settlements in Brazil (Hanazaki et al. 2007). Colonisers did early on start to search for gold and other precious metals in the region and used the Ribeira de Iguape River to access the interior (Diegues 2007). Alluvial gold was found in Upper and Medium Ribeira in the 1550s, which stimulated the establishment of various small towns along the margins of the river. Indigenous peoples were first used as slaves in mineral exploitation, but a large number of slaves from Africa were brought to the region in the beginning of the 17th century (Carril 1995). With the exhaustion of gold deposits in the Ribeira Valley and new discoveries of precious minerals in the neighbouring state of Minas Gerais, many miners and slave-owners left the region at the end of the 17th century. The closing of the gold casting house in Iporanga in 1763 marked the end of a 200-year gold mining period, although some small mining operations continued (Oliveira Jr. et al. 2000).

In the beginning of the 19th century, large-scale rice cultivation was introduced to the region as an alternative economic activity. The rice was transported to the urban market by the use of the Ribeira de Iguape River to the Ribeira Port. From there, it had to be carried on the back of animals to the Iguape Port where it was taken by ships to other ports in the Empire (Diegues 2007). Due to the difficult and time-consuming transportation from Ribeira to Iguape, a 3 km long and 3 m wide channel (*Valo Grande*) was opened in 1852 to get direct access to Iguape. However, erosion of the river banks made the channel quickly widen to 300 m. This caused enormous sedimentation of the river, which restricted navigation, reduced salinity levels in the Mar Pequeno (between Iguape and Ilha Comprida) and affected the mangroves and reproduction of many fish species (Hanazaki et al. 2007). The opening of the Valo Grande channel therefore turned out to be an environmental disaster and resulted in the eventual closing of the Iguape Port (Castro et al. 2006). Rice continued to be cultivated by small and medium producers, and was transported by vapour ships on the river until the 1930s (Diegues 2007). With the construction of the first roads, the Ribeira de Iguape River lost its importance as a transport medium, and the economic prosperity of the region came to an end.

Since both mining and rice cultivation had lost relevance, many African-descendant slaves were liberated or abandoned long before official abolition of slavery in 1888. Already in 1780, the free black population outnumbered enslaved people in the Ribeira Valley and in 1886, only 10% of the black population was enslaved (Carril 1995, Petrone 1966). Previous mining areas and abandoned farms were donated or sold to former slaves, who established different communities that exist until today (Santos and Tatto 2008). The oldest quilombo is Ivaporunduva, which was donated to the former slaves by the slave owner in 1720. Most early quilombos were located along the Ribeira de Iguape River, but with time, some community members ventured off into new areas and settled down on unoccupied government land. This has given rise to a vast number of quilombos in the municipalities of Eldorado and Iporanga. In these communities, inhabitants engaged in small-scale agriculture, animal-rearing, hunting, fishing and collection of forest products, both for subsistence and sale to the local market. Through exchanges and sale of different products, a close network was obtained between different communities and also with external actors (Oliveira Jr. et al. 2000).

In the early 20th century, Japanese and European immigrants settled in the Ribeira Valley in an attempt to revitalise the economy, but did not overcome the challenges of the poor infrastructure (Castro et al. 2006). The economy of the Ribeira Valley continued to rely mainly on small-scale agriculture and extraction of forest products, chiefly palm hearts from the juçara palm (*Euterpe edulis)* (Fantini and Guries 2007, Hanazaki et al. 2007). In the 1950s, factories were opened for processing of palm hearts and many quilombolas abandoned

the traditional practices of subsistence agriculture. However, when the juçara palm became under the threat of extinction, the Ribeira Valley received increased attention by environmental activists and researchers, both internationally and nationally. Concerns with loss of biodiversity and habitat reduction of the Atlantic Forest in the rest of Brazil combined with the discovery of numerous caves hosting archaeological sites and endemic biodiversity, resulted in the establishment of protected areas (Castro et al. 2006). The first was the Upper Ribeira State Touristic Park (PETAR: 35,712 ha) in 1958, followed by Jacupiranga State Park (PEJ: 150,000 ha) in 1969, Carlos Botelho State Park (PECB: 37,644 ha) in 1982, Serra do Mar Environmental Protection Area (APA-SM: 569,450 ha) in 1984 and Intervales State Park (PEI: 49,000 ha) in 1995. The first established protected areas persisted as 'paper parks' until the mid-1980s when park regulations started to be implemented (Figueiredo 2000).

Simultaneously as environmental conservation received increased attention, more efforts were taken to develop the Ribeira Valley as a way to break the situation of economic stagnation and poverty, and to 'occupy the region' to counteract guerrilla groups.[14] With the entry of the dictatorship regime in 1964, a series of infrastructure projects were implemented such as the construction of the state road SP-165 linking Iporanga to Eldorado in 1969, the construction of a bridge crossing the Ribeira River in Iporanga, instalment of telephone lines and the setting up of rural schools and health centres (Adams et al. 2013). As many quilombola families wanted to live closer to the rural schools, they moved from their homes in often remote areas to small villages where new houses were constructed with access to electricity and public transport to Eldorado (Adams et al. 2013). Furthermore, different regional development agencies were established in the state of São Paulo (Figueiredo 2000). These included the Superintendence of Coastal São Paulo (SUDELPA) established in 1969 and the Centre for Agricultural Development of the Ribeira Valley (CEDAVAL) in 1971 with support from the Japanese government. Mechanisation of agriculture was promoted, and tax incentives and other benefits were given to farmers for cattle ranching, tea, pine, eucalyptus and banana plantations, mainly along the margins of the Ribeira de Iguape River. The new income-generating opportunities and the improved infrastructure attracted many people from the outside to the region (Castro et al. 2006). This increased land value and land grabbing started to occur inside quilombos, triggering land conflicts.

In the late-1980s, a wave of external pressures hit quilombolas when strictly protected areas began to be implemented and CBA was granted concession for the hydraulic use of the Upper part of the Ribeira de Iguape River and requested preliminary license for the construction of the Tijuco Alto dam. With support from the Catholic Church, quilombolas established an anti-dam movement which also opposed the implementation of strictly protected areas, encroaching farmers and land grabbers. As a strategy against these external threats, many communities began to discuss the rights of quilombos and their quilombola identity, in the wake of the then newly approved 1988 Constitution. Due to mobilisation and advocacy activities, the quilombolas of the Ribeira Valley received increased attention and many NGOs and government agencies started to cooperate with quilombos in the region. Alternative income generating activities have been introduced, including organic banana cultivation, processing of banana sweets, honey projects, handicraft groups by women, planting of juçara palms and ecotourism. The ecotourism project involves six quilombos where a number of tourist guides have been formed. A guest house has been constructed in Ivaporunduva (which receives school classes and other groups) and visitors get to meet quilombola families, learn

[14] According to the national defence doctrine practiced by the military in rule.

about their traditional resource use and cultural practices, eat traditional food and watch dance performances by quilombolas. Also many research projects have been undertaken in different communities by research groups from the University of São Paulo and the University of Campinas. Furthermore, the Norwegian Church Aid has funded advocacy and educational work with quilombola youth through its Operation Day's Work campaign. Due to these activities, there is an increased participation of community members in a range of activities, many study outside of the Ribeira Valley, some have become leaders in the national quilombola organisation CONAQ and in the national anti-dam movement MAB, while others have become lawyers, teachers and public servants. Today, most quilombola communities have road access, electricity, installed water and sanitation, communal phones, small bars, churches, health posts and schools for primary education in the villages (Adams et al. 2013). Moreover, a secondary school tailored for quilombola education has been set up in André Lopes (*Escola Chules Princesa*), which is the first of its kind in Brazil. Community life has thus changed drastically in most quilombos in the Ribeira Valley over the last three decades.

The quilombo Bombas

The situation of the quilombos described above is, however, not reflected in Bombas, the most geographically isolated quilombola community in the Ribeira Valley. Bombas is only reached by a steep forest trail either by foot or on horseback. The forest trail starts at the Betary Reserve, 5 km from Iporanga town. From there, it takes about 2 hours by foot to reach the first house (another 5 km) – due to the steep topography and often muddy trail – and an additional 3 hours to reach the last house. The houses, principally made of wooden poles and clay (*pau-a-pique*) are scattered throughout the territory, and there is no village centre. However, the inhabitants talk about two centres, Bombas and Cotia, officially referred to as 'Lower' Bombas (*Bombas de baixo*) and 'Upper' Bombas (*Bombas de cima*) respectively. The territory is further divided into Cotia Grande, Lagoa, Mona, Paca, Roncador, Sobradinho, Pinheirinho and Córrego Grande (Figure 5). All areas have been inhabited in the past, but nobody lives in Córrego Grande at present. The landscape is characterised by a mosaic of forest in different successional stages, but dominated by mature forest. The tributaries that flow into the Cotia stream enter the Ribeira de Iguape River while the remaining tributaries enter the Bombas stream (Santos and Tatto 2008). The name 'Bombas' has its origin from the noise of one of the streams that resurges inside the Bombas cave, where the threatened blind albino catfish (*Pimelodella kronei*) – one of the main targets for protection – lives. The sound of this river resembles the explosion of a bomb, or a water pump.

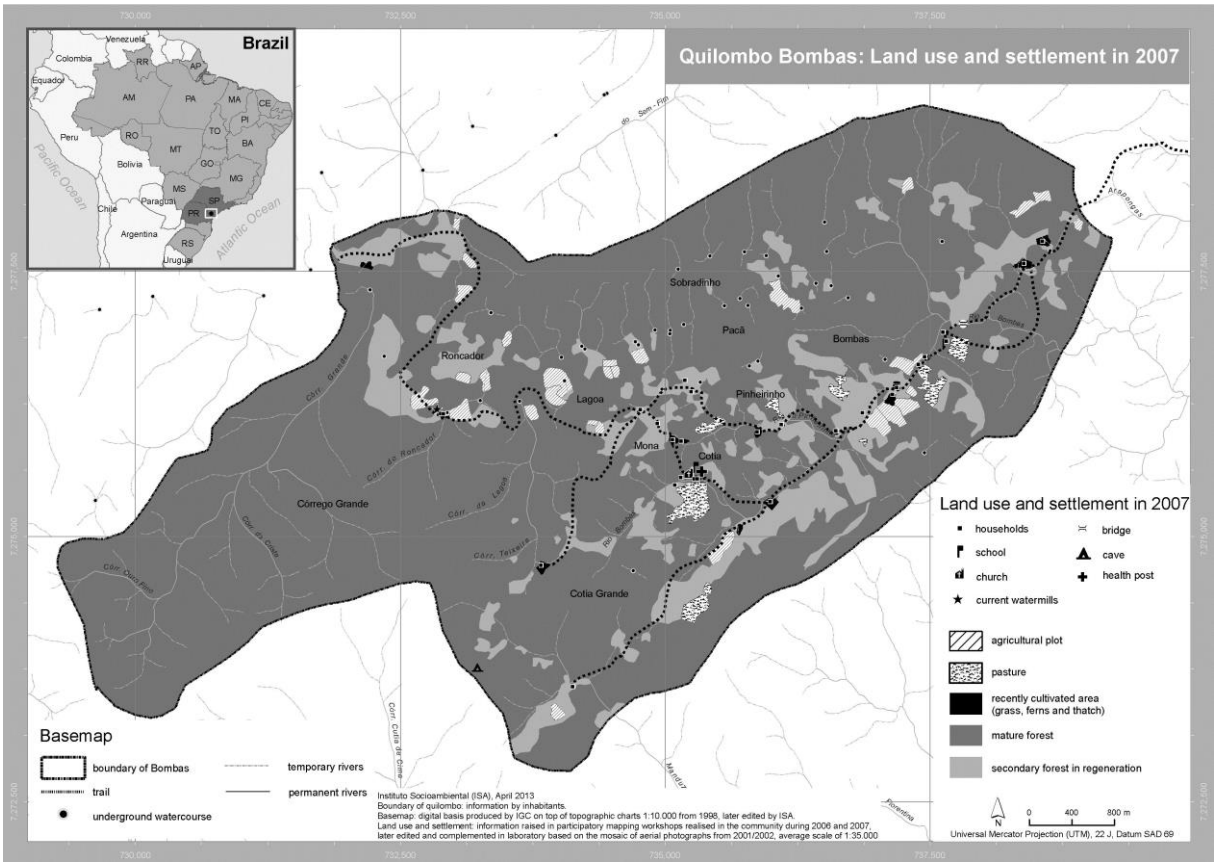


Figure 5: Map over the historical territory of Bombas as outlined in Santos and Tatto (2008), made with the participation of inhabitants in 2007. The territory includes 3,229 hectares, which differs from the map made by the Land Institute of São Paulo (ITESP) of 3,050 hectares. In the most recent map of Bombas, as proposed by the Forest Foundation, the area of Córrego Grande has been excluded, leaving a territory of 2,402 hectares.

The historical occupation of Bombas dates back to the 1910s when former slaves and descendants of slaves settled down (Silveira 2003). Lower Bombas was occupied by descendants of the Furquim family who probably had worked in the nearby mining company *Fazenda Furquim* in Lageado. This is also the surname of one of the first inhabitants of Ivaporunduva and the founder of São Pedro (Oliveira Jr. et al. 2000). However, when parents of the Furquim family died, their children left. Ms Ursulino de Freitas from Baú shortly after arrived in Lower Bombas. Ursulino de Freitas is a common surname in the nearby quilombos Pilões, Maria Rosa and Nhunguara, all situated in the municipality of Iporanga (Amorim 1998a, 1998b, Carvalho and Schmitt 2002). After the death of her husband, Ms Ursulino de Freitas went to Bombas together with her children and Mr Muniz with unknown origin. Mr Muniz later married Ms Dias from Santo Antônio (close to the quilombo Porto Velho) and Pavão and moved to Cotia in Upper Bombas (Silveira 2003). Upper Bombas was also inhabited by the Teixeira family, probably from Itapeva, who arrived in Lagoa between 1920 and 1930. As they brought pigs and currency to pay for agricultural workers, many people from nearby communities in search of employment started to arrive. Mr Texeira and his children left Bombas after the death of his wife, but his workers stayed. Among these were former inhabitants from the quilombos João Surá and Praia Grande (Santos 2002).

During fieldwork, the number of families present in the territory varied between 12 and 17. This represents a drastic decline compared to the 1970s, when about 80 families used to live in the community. Many families chose to move to nearby cities due to the difficult living conditions in such a remote place with no road access, electricity, piped water, basic sanitation, health services and poor communication facilities. These services have been denied them by the state since they are considered illegal dwellers inside the protected area of PETAR. The education services are also meagre; two schools offer classes from first to fourth grade in elementary education (Figure 6). The schools are located in Lower and Upper Bombas, but from time to time, the school in Lower Bombas is shut down by the local government due to the limited number of pupils. Those who want to study further, need to go to Iporanga, Serra or Apiaí and because of the long distances, generally move to relatives in these towns. Bombas inhabitants are mainly involved in shifting cultivation activities, planting of home gardens, collection of forest products and occasional fishing and hunting. Agricultural production is mainly for subsistence purposes, but excess crops are sold in nearby towns. The older part of the population receives rural retirement allowances, and families sending their children to school benefit from the government program *Bolsa família*. Few domestic animals are held, except chicken, ducks and turkeys.

Figure 6: Cotia in Upper Bombas, holding a couple of residential houses and the local school.

3.2 Research Ethics

Research ethics is not a separate component of a research design, but ethical considerations should be taken in all the steps of a research project; from the selection of research objective and research questions to the chosen methods and theory and in considering validity (Maxwell 1996). The aim of research ethics is to guide appropriate procedures for specific research practices and recommendations for what actions to take in particular situations (Peach

1995:13). The issue of rights is important in research ethics, such as the rights of human research participants to prior consultation, to be treated with respect, to be guaranteed confidentiality and to get access to research results. Being aware of principles of research ethics is important because it helps to avoid harm to research participants, to the public, and to the environment. Furthermore, it provides a framework for examining the ends that research serves. Besides this, it encourages more objective practices, procedures, and methods in obtaining knowledge and thereby has the potential to reduce bias and increase scientific value (Shrader-Frechette 1994:5). In order to conduct ethically sound research, it is first and foremost important to be familiar with professional ethical obligations as well as with national and international ethical principles, rules, regulations and discussions. During my fieldwork in the Ribeira Valley, I was subject to the national laws and ethical guidelines both in Norway and Brazil, and the internal norms of the quilombola communities where I collected data.

The drive for establishing current ethical guidelines is rooted in ethical failures, especially in the practice of medical experiments on humans prior to and during the Second World War. After the Nuremberg trials of the Nazi and war criminals, the international Nuremberg Code was established in 1947, explicitly stressing the need for voluntary participation, informed consent and benefits of research to outweigh risks or harms (Whiteford and Trotter II 2008). The emphasis on the importance of individuals initiated the international political movement for universal human rights. The Universal Declaration for Human Rights was adopted by the United Nations General Assembly in 1948. Later, the Helsinki Declaration of 1964 improved definitions for many aspects of protection of human research participants and extended the ethical codes from biomedical research to other scientific disciplines.

Discussions about ethics in research undertaken in the global south have also occurred at times of crisis, and many issues are rooted in the ethical concerns raised at the Nuremberg trials (Fluehr-Lobban 2003a). The controversy over the publication of *Darkness in El Dorado: How Scientists and Journalists Devastated the Amazon* by Patrick Tierney (2000) particularly influenced discussions on research ethics in Brazil. This book strongly criticised a research project carried out by the anthropologist Napoleon Chagnon and geneticist James V. Neel in the 1960s among the Yanomami living in the Amazon on the border between Brazil and Venezuela. Tierney accused the researchers of having introduced a measles epidemic as well as initiated warfare, staged films and falsified data in order to portray the Yanomami as a 'fierce people'. Additionally, Chagnon was accused of using multiple forms of deception in his study on kinship, as the Yanomami refused to speak the names of their dead. This case triggered intense debates about ethics in anthropological research. Based on this and other negative experiences, suspicion toward all kinds of research increased among indigenous and traditional peoples in Brazil. This complicated access for other researchers.

Accompanied by the growth of international movements of indigenous and traditional peoples for their rights to consultation, the context of fieldwork among such groups has changed fundamentally. The Brazilian government now requires that in culturally differentiated populations, prior informed consent has to be granted by the community through its own leaders, in addition to obtaining individual consent (Firestone 2002). This is also acknowledged in the ethical guidelines of the National Committee for Research Ethics in the Social Sciences and the Humanities (NESH) in Norway and the Norwegian University of Life Sciences (NMBU). These guidelines state that research in other cultures put extra claims for dialogue with representatives and members of traditional communities. The ideal research practice is a collaboration where the research is adapted to the given culture and the results

are relevant for the participants. Before travelling to Brazil, I applied to the Norwegian Social Science Data Service (NSD), as my research project dealing with quilombolas, was subject to notification under the Personal Data Act. NSD approved my research topic and methodology, but prior to collecting data in the field, I also made sure to obtain free, prior informed consent by the community of Bombas as well as individual consent from all research participants.

3.2.1 Free Prior and Informed Consent

Informed consent has been defined as 'the knowing consent of an individual, or legally authorised representative, able to exercise free power of choice without undue inducement or any element of force, fraud, deceit, duress, or other form of constraint or coercion' (Fluehr-Lobban 2003b:166). Free prior informed consent includes four analytical components: disclosure, understanding, voluntariness and competence. These components require that the researcher provides full information about the nature and purpose of the research, potential risks that may result from research activities, that the participant understands and assents to the research, and that the participant is emotionally and physically competent to give consent (Shrader-Frechette 1994). Furthermore, it is necessary to identify the researcher and research institution, financial resources, and expected duration of participation (Whiteford and Trotter II 2008:67). The extent of data accessibility that communities can expect should also be clearly stated and agreed upon as part of an approval process.

Before starting data collection in the quilombo Bombas, I visited the community three times in order to get to know people and the issues at stake in the community. During these visits I mentioned my interest in conducting research in the community about the negotiation process over land rights between the quilombola association of Bombas and state actors as well as the inhabitants' resource practices and impacts on agrobiodiversity and forest cover. I approached both formal and informal leadership in Bombas; the President of the quilombola association of Bombas living in 'Lower' Bombas, the oldest inhabitant and long-time natural leader in 'Upper' Bombas, and the 'outsider' who had registered the quilombola association and been the first President. They were all positive to this type of research and suggested that I presented my research proposal to the community in connection with the inauguration of the Community Centre in Lower Bombas. This was supposed to take place on 29 October 2010, but as the Community Centre had not been finished in time, it was postponed to 27 November 2010.

The day before the official opening of the Community Centre, I went to Bombas with my local supervisor (the coordinator of the Ribeira Valley Program at ISA), two other ISA staff and a volunteer, and the Catholic nun/ lawyer who had participated in the establishment of the anti-dam movement MOAB and EEACONE. In connection with a cultural inventory study organised by ISA, a workshop was held in Lower Bombas to make a cultural map of the community. This workshop gave important insight into the rich diversity of cultural assets currently held by the community as well as the cultural assets that had been lost. The next day, a meeting linked to the negotiation process over land rights with the state was held in the Community Centre. ISA acted as a mediator and EEACONE as a legal assistant in this negotiation process and took the opportunity to read, analyse and suggest changes to the Work Plan written by the environmental agency, the Forest Foundation (FF).

After this meeting, I presented my research proposal. All information was given in Portuguese, both oral and written, and the presentation was filmed. I was concerned that the

inhabitants would confuse my research with the environmental study to be carried out by the Forest Foundation in connection with PETAR's Management Plan and the quilombola recognition process. I therefore began my presentation stating that my research was independent and that I had a PhD stipend from NMBU financed by the Norwegian Government. I also talked about Noragric and its collaboration with ISA, and why I had chosen the topic of my PhD thesis. I told about a Fredskorps (Peace Corp) exchange that I had participated in with ISA in 2008 and my first encounter with the Ribeira Valley. I then presented the research objective and research questions, highlighting that these were in line with the wishes expressed by quilombolas and other traditional peoples in the Ribeira Valley raised in a seminar on 'Research and Traditional Peoples' in Registro in August the same year.[15] I went on to explain the intended research methods, planned academic papers and how results would be disseminated. As a counterpart, I promised to translate my papers about Bombas into Portuguese, which would be distributed after having been published. Furthermore, credit would be given to the community in the individual papers and in the thesis.

After having presented the research proposal and opened for discussion, the community decided to accept both me and my research. Even though I got acceptance from the participants at the meeting, this did not signify that everybody wanted to take part in the research. Someone could have nodded or kept silent as they were hungry and wanted to finish the meeting quickly and some might not have understood at all what I was talking about. Furthermore, not all community members were present at the meeting. Due to these limitations there was a need to present the study in detail to all the individuals I wished to interview or involve in the data collection. Everyone that I approached was informed that participation in the research was voluntary and that interviews would only be carried out with persons who had given individual consent after having received full information about the nature and purpose of the research. Before undertaking interviews with quilombolas, I presented a research summary which I read out aloud before asking for consent. The most common form of consent is written; however, when research participants are illiterate (as is the case of most Bombas inhabitants), verbal consent is an ethical alternative (Whiteford and Trotter II 2008). I also asked for consent to record the interviews and all but one participant agreed to this. The same consent procedure was followed during interviews with other key informants like state officials, representatives from NGOs and social movements, lawyers, researchers, politicians, tourist guides and teachers. Prior to these interviews, I often sent information about the research by email. Personal data and other sensitive information were anonymised to protect privacy and security.

The methods employed in the research such as participant observation, cultivation of personal relations with people over a period of time and open in-depth interviews, tend to discourage the use of consent. This is because it can impede research participants to behave naturally and restrain access to information about illegal activities and closed settings. Informed consent has been criticised for being impractical as it requires consent from all newcomers to the research, and since it can be demanding to translate concepts that are meaningful for researchers, but not necessarily for the research participants. The process of informing in a culturally appropriate way, so that consent (or refusal) can be based on sufficient information, is also time-consuming and challenging. However, confronting these challenges result in a more

[15] These included wishes for more research on traditional communities' contribution to biodiversity conservation, impacts of strictly protected areas on communities and dynamics of shifting cultivation.

transparent and ethically sound research environment, crucial for the building of trust (Firestone 2002).

Ethical considerations need to be taken in the planning of research design, during fieldwork, in analysis, in the writing stage and lastly with dissemination of research results through publications. Unequal access to scientific knowledge is a problem, so Paper 2 was published open access in Human Ecology. Paper 3 was also intended for open access publication, but as Society and Natural Resources was downgraded from level 2 to level 1 in 2015 – after it had been accepted for publication – it was not eligible for a grant for open access publishing at Noragric/NMBU. After publishing Paper 2, the original English version and a translated version into Portuguese were delivered to the community in May 2015 (Appendix 1). Paper 3 was also delivered, but the translated version was only distributed in February 2016 after it had been completed (Appendix 2). Copies of the thesis will be distributed when published. Sharing of research data allows communities to better understand the purpose of the research and is essential for building of trust, and for allowing future researchers to be accepted (Firestone 2002).

3.2.2 My Positioning as a Researcher

Knowledge production for this thesis has taken place through participation, intervention and learning and has thus been situated and contextual. Researcher's relation to, involvement and participation in the social processes they study are central to ethnographic fieldwork, 'usually indicating the intensive qualitative study of small groups through "participant-observation"' (Ellen 1993:7). By being present in the field, the bias of researchers' knowledge can be reduced, since a deeper understanding of the context can be gained through interaction with different stakeholders (Mjøset 2009). A stronger objectivity can also be seen to emerge when different knowledge systems enter into a critical engagement with one another, as is the case of interdisciplinary research drawing attention to both scientific and traditional knowledge. However, researchers' background, ideology and previous knowledge on the conducted study influence what data is searched for, found and presented (Hacking 1999:2). From a social constructivist epistemological position, unbiased and complete understandings of an empirical reality is impossible to obtain as researchers themselves are participants in society and cannot position themselves outside and independent of the social realities they address (Nanda 1998). Mjøset (2009:48) points out that researchers' presence in the local setting will inevitably make them part of the creation of the case as they will get involved in a process and can for that reason influence an outcome. As I am not an invisible, neutral entity, it is important to reflect on my own positioning as a researcher throughout the research process.

Since the inception of this thesis, I have been engaged with the Socioenvironmental NGO *Instituto Socioambiental* (ISA), which among other places, work in the Ribeira Valley. Prior to undertaking fieldwork in the Ribeira Valley, I had worked for this NGO in 2008 as part of a Fredskorps exchange program between ISA, Noragric/NMBU and the Rainforest Foundation. Through this exchange, I visited ISA's, at the time, six offices and got to know its different programs. I visited the Ribeira Valley twice, and attended different workshops dealing with alternative income generating activities for quilombolas, a traditional seed exchange festival, a seminar on traditional knowledge and technology and a meeting with the anti-dam movement MOAB. I also visited three quilombola communities; André Lopes, Sapatu and Ivaporunduva. Furthermore, I attended an international seminar on the implementation of the ILO Convention 169 on Indigenous and Tribal Peoples in Brasília, which provided a platform

for different stakeholders to debate the application of the right to prior consultation for indigenous peoples and quilombolas. The short visits to the Ribeira Valley provided crucial insight for defining the research problem and in writing my research proposal. This was complemented with updated information from ISA about the issues at stake in the region during a visit to Brazil in December 2009. The research focus of my thesis was thus influenced by ISA, which in turn influenced my selection of case sites. My close engagement with ISA might also have influenced my judgments of importance of research questions and expectations of what to find out (Miller 1991).

When I started fieldwork for my PhD thesis in August 2010, ISA staff invited me to two seminars on traditional peoples, research and research ethics in the Ribeira Valley. Here, I met different quilombola leaders from different communities who later on participated in the study and researchers, representatives of NGOs and government officials working in the region. Throughout the periods I conducted fieldwork in the Ribeira Valley (August 2010 – July 2011, January 2012 – April 2012, September 2012 – December 2012, February 2013 – May 2013), ISA invited me to different seminars, meetings, workshops and public hearings. When I stayed in Eldorado, I was offered to sleep over at ISA's office/house and to use its office facilities. ISA staff also offered rides from São Paulo to the Ribeira Valley and to the different quilombola communities.

My involvement with ISA was fundamental in allowing me access to the quilombola communities, particularly Bombas. Bombas residents were sceptic to people from the outside, especially state officials and researchers. Their reluctance to state officials stemmed from their poor experience with forest authorities that had enforced environmental legislations restricting their activities in the past. Otherwise, the state had been practically absent in providing social services and infrastructure development, and the residents felt that they were either threatened or ignored. The state land agency ITESP had, however, helped in giving advice on the quilombola recognition process and had assisted in demarcating the historical territory and undertaken the anthropological study needed for recognition. Nevertheless, the recognition process had been halted since 2003, and Bombas inhabitants had started to lose faith in the government. An episode in July 2010 with a team of researchers from the Forest Foundation having tried to enter Bombas to collect data for PETAR's management plan, had served to produce a heightened scepticism toward researchers.

Bombas inhabitants' relationship with ISA was different due to its status as a non-profit independent NGO working to promote quilombolas' struggles and improve their livelihoods. ISA had worked in the community since 2006 in connection with a strategic planning project for sustainable use of quilombola territories (Santos and Tatto 2008). Also ISA's good relationship with other quilombos in the Ribeira Valley and MOAB/EEACONE contributed to build trust. It was ISA that had encouraged the quilombola association of Bombas to enter the negotiation process with forest authorities and had lit a hope of obtaining a land title and a better future. Without the gateway through ISA, I believe I would not have managed to conduct research in Bombas. Prior to my fieldwork in Bombas, only two researchers had conducted studies in this community. The first was Pedro Castelo Branco Silveira from the University in Campinas (UNICAMP) who undertook research for his Master thesis in 2000 about traditional peoples and protected areas (Silveira 2001) and the anthropological study required for the recognition process by ITESP (Silveira 2003). The second was Maria Walburga dos Santos from the University of São Paulo (USP) who had collected data for her PhD thesis on transmission of games and plays between generations (Santos 2010). Santos

had also been introduced by ISA.

The first time I visited Bombas, I went together with an anthropologist from ISA who was inventorying the intangible cultural heritage of Bombas and 15 other quilombola communities in the Ribeira Valley (Andrade and Tatto 2013). This inventory involved the mapping of five immaterial cultural assets; 1) forms of expression, 2) celebrations, 3) crafts and ways of doing, 4) places and 5) edifices. This was in accordance with a standard methodology developed by the National Institute for Historic and Artistic Heritage (IPHAN) – a federal agency under the Ministry of Culture responsible for preserving, disseminating and enforcing the Brazilian cultural heritage. This first visit to Bombas provided me with an excellent opportunity to get insight into historical and current cultural and livelihood practices as well as getting to know inhabitants. The second time I visited Bombas, I went together with another ISA staff. At this visit, we invited Bombas inhabitants to a traditional seed exchange market and a preparatory meeting that were to take place in the city of Eldorado. Another reason was to deliver an invitation to a meeting about a proposal for an agreement between the quilombola association of Bombas, ITESP and FF that had been developed after a meeting between the three parties in July 2010. The third time, I went with the anthropologist again who was going to conduct more interviews about cultural assets in the community. After having presented my research proposal and been accepted by the community in November, I went to Bombas on my own. Nevertheless, when internal conflicts in Bombas aggravated, I was warned about going to the community alone as some inhabitants had been threatened and others had been attacked. I therefore went together with my local supervisor toward the end of the fieldwork period.

As a counterpart to being invited to all the negotiation meetings between the quilombola association of Bombas, state actors and mediatory NGOs, I wrote minutes. These were later distributed to the different actors and archived. After the Forest Foundation had backed down on its promise to accept the historical territory of Bombas, I helped the Bombas quilombola association write a letter explaining the recognition process since its inception in 2002 until 2013. This was based on gathered data about the quilombola recognition process, including all minutes from meetings held between 2009 and 2012. This letter was sent to the Governor of the state of São Paulo, São Paulo Environmental Office and the Justice and Defence of Citizenship Office. After receiving this letter, the Forest Foundation scheduled a meeting with the quilombola association of Bombas, which led up to an agreement being settled. Furthermore, I gathered all documentation about Bombas to be included in the recognition process. I distributed this information to the quilombola association of Bombas, ITESP, FF, EEACONE and ISA. I also wrote a news article about the recognition process on ISA's homepage *Notícias Socioambientais* (Andrade and Thorkildsen 2011). In this way, I got directly involved in the recognition process. I also acted as a messenger due to the difficult communication in Bombas – lacking a public phone and mobile signal. In many cases, I delivered letters from officials, minutes from previous meetings and invitation to new negotiation meetings or other events arranged by the government or by ISA or EEACONE. My engagement with ISA and my role as a messenger might have made people believe that I worked for this NGO, which could have affected research participants' statements. However, I expressed that I was an independent researcher on several occasions. I also believe that my Norwegian accent and appearance did help remind people that I came from Norway.

My involvement in the quilombola recognition process of Bombas is in line with one of the objectives of research ethics, which is to promote social justice for the people being studied.

According to Graham (2006), researchers who work with vulnerable indigenous and other marginalised communities have a special responsibility to engage in support of these groups, or advocate on their behalf. This is also a clear aim of political ecology and environmental justice research, which seek to ask questions and gather information that facilitate struggles for greater social and environmental justice (e.g. Blaikie 2008, Paulsen et al. 2003, Peet and Watts 2004, Forsyth 2008, Editorial 2004, Pulido 1996, Bullard 1983). These scholars argue for stronger relationships between research and practice and encourage researchers to become involved in policy settings.

3.3 Methods of Data Collection and Processing

The data collected for this thesis were obtained by using a mixed-methods approach, gathering both qualitative and quantitative data, as a way to triangulate the data. Qualitative research methods involved participant observation, attendance in meetings, seminars, workshops and public hearings with quilombolas and other key actors, open-ended in-depth interviews and holding of a focus group discussion. Quantitative research methods included classification of land use of Bombas in four different periods, comparing an aerial photograph and three satellite images. The use of a mixed-methods approach enabled investigation of the research questions from an interdisciplinary angle, providing insight into different perceptions and events as well as insight into the same phenomenon from different angles. The primary data has further been cross-checked with official documents and publications, grey literature, websites and the media. Maxwell (1996) points out that the use of multiple methods has the potential of reducing weaknesses or biases associated with one particular method and strengthen the overarching research inquiry.

3.3.1 Participant Observation

Participant observation refers to a process of learning the meaning of actions through involvement in the daily activities of people and systematic recording of these observations in a field diary (Pader 2014). For the participant observer, watching, hanging-around and listening are the main data gathering methods (Ellen 1993). I used participant observation in Bombas where I stayed over at different homes, ate, slept, cooked, helped with the dishes, played with the children, visited agricultural fields and home gardens, attended meetings and participated in celebrations. The community members frequently invited me to their home gardens and their agricultural plots, and spoke eagerly about what they planted, when they planted, when they harvested as well as storing and processing of food. They also told about how practices had changed from the past. The accounts as well as the visual assessment of agricultural practices was vital for my understanding of inhabitants' use and management of natural resources. On two occasions, I witnessed *camaradas*, which is a help-organisation where the 'owner' of an agricultural plot pays other residents to help out clearing, planting or harvesting a plot. During lunch, it was possible to make an informal group discussion about agricultural activities and crop varieties. Based on participation of the residents involved in the *camaradas*, I made a seasonal calendar over agricultural activities. This enabled examination of what species and varieties were cultivated and when. Changes in crop diversity over time and social networks of exchange were also discussed.

Visits to different homes and participation in different conversations provided access to information that otherwise would have been difficult to obtain, such as social relationships. I

was frequently told gossips about other community members or about people from the outside, giving me insight into conflicts with both internal and external actors. Different issues were at stake during the time I did fieldwork in Bombas, among others; the quilombola recognition process, the environmental study to be conducted by the Forest Foundation and the location of the Community Centre. Participant observation in Bombas permitted examination of local resource use and cultural practices, livelihood activities and social relations, but also helped to discover the relationship between statements made by research participants and consistency of their nonverbal behaviour.

From April 2011, I was unable to go to the community, as I was pregnant with my first child. Due to the long distances, steep topography, and the need to carry a heavy backpack when going to Bombas, my doctor advised me not to go due to the risk of miscarriage. Furthermore, I had gotten lice and worms when staying in Bombas, and this could not be treated as long as I was pregnant. Other risks included the large number of snakes and the presence of carnivores in the territory. I observed different types of snakes every time I was in Bombas, and I once had an uncomfortable encounter with a jaguar or forest cat at night. Due to my difficulties of going to Bombas after getting pregnant, I made appointments with inhabitants to meet me in Iporanga for interviews. Although the pregnancy restrained me from engaging in some activities, it gave me access to knowledge that had not been discussed earlier. It enabled me closer connection with many of the women, who felt that we had something in common they could talk about. The women told about the difficulties of being pregnant in the community, women who had given birth by themselves, on the forest trail, who had lost their babies, the traditional practices of local midwifes and the no-longer existent cemetery of infants (*cemitério dos anjinhos*).

Furthermore, participant observation allowed insight into different arenas for struggle where different actors compete with each other for access to and control over resources (Pader 2014). From 2010 to 2013, I attended numerous meetings, public hearings and seminars with quilombolas and other key actors. Regarding the negotiation process over rights to the Bombas territory, I attended three community meetings in Bombas and nine meetings between the quilombola association of Bombas, state officials, researchers and representatives from civil society organisations in Iporanga. These meetings provided insight into the negotiation process, the use of different discourses to support competing claims as well as actual behaviour, actions and interactions between the staekholders, providing insight into power relations. Also linked to the negotiation process, I attended a meeting at the Forest Foundation where PETAR's Management Plan was presented. This meeting consisted mainly of researchers and government officials, no local inhabitants had been invited. Moreover, I attended a steering meeting of the Mosaic of Jacupiranga State Park, which included eleven quilombos classified as Environmental Protection Areas (APAs), allowing human occupation and low-impact resource use activities. This provided an opportunity to hear the experiences and perceptions of other quilombolas regarding this type of conservation arrangement.

I also attended a meeting organised by the anti-dam MOAB in Registro, a seminar and celebration of MOAB's 20 years of resistance in Ivaporunduva and a meeting organised by the national anti-dam movement MAB at the Federal University of Rio de Janeiro (UFRJ). These meetings discussed the impacts of dams and anti-dam strategies. The potential impacts of the construction of dams on the Ribeira de Iguape River and the importance of this river were also raised in cultural inventory workshops in different quilombola communities organised by ISA. I attended five such workshops in the quilombos of São Pedro, Galvão,

Ivaporunduva, Praia Grande and Bombas. A general meeting about the cultural inventory study, gathering cultural agents from 16 quilombos in the Ribeira Valley, was also attended. Here, quilombolas talked about their cultural assets, where the importance of the Ribeira de Iguape River as a 'place' was highlighted on several occasions. Participation in two workshops on territorial governance in São Pedro, organised by ISA, provided supplementary details about these issues.

Besides this, I attended three public hearings in Iporanga and a public hearing in São Paulo about quilombos' rights and challenges, a seminar on quilombos and environmental legislation in Ivaporunduva, a public hearing with ITESP and IPHAN in the Devil's Cave Park in the quilombo André Lopes, an official visit by the Justice and Citizenship Office in Ivaporunduva, a traditional seed exchange market in Eldorado and an associated seminar on traditional crop diversity and shifting cultivation practices, a workshop on honey production as well as celebrations in different quilombola communities. I also participated in a manifestation in São Paulo in 2014 against the Proposed Constitutional Amendment 215/2000, intending to restrict quilombos' rights to land ownership in 'transitory' Article 68.

3.3.2 Key Informant Interviews

Open-ended, in-depth interviews go hand in hand with participant observation. Opinions of different people are more easily detected in an open-ended interview format as issues at stake are generally not known to the researcher in advance. As a way to discover what questions to ask, I held numerous informal conversations with different informants before I conducted my first interview (Ellen 1993). This is not only important for the researcher to obtain relevant information for a specific research project, but also for creating an interview process that is meaningful and relevant for the informant (Kaarhus 1999). In total, 70 open-ended in-depth interviews were held with key informants between 2010 and 2013. Key informants were selected by using snowball-sampling, implying that key persons pointed out other relevant people with personal involvement and/or in-depth information. Sometimes interviewees would suggest new people to talk to and if not, I would ask for indications. The series of interviews for this thesis were therefore open, where both I and the informant contributed to direct the research. The information obtained in one interview was taken into consideration for the next interview, where new probing questions about specific events or activities were asked while other questions that I felt were unnecessary were taken out. Some informants were interviewed on more than one occasion as a way to get deeper insight into a specific aspect of the research on which the informant held comprehensive knowledge. When I had reached a point where little new information was obtained, suggested key-informants had already been interviewed and I did more or less know the answers in advance, I decided that I had obtained sufficient information (Kaarhus 1999).

Interviewees' knowledge and position decided the topic for exploration, what questions would be followed up and how questions were formulated. In connection with the conservation component of the thesis, interviews with Bombas inhabitants and former inhabitants were held. The interviews with Bombas residents did mainly focus on the history of the settlement of Bombas, changes in resource use practices, crop diversity, biodiversity, cultural practices, processing of food as well as the impacts of these changes, the implementation of PETAR, perceptions and responses to the Park, the first encounter with the term 'quilombola', the establishment of the quilombola association and the quilombola recognition process

(Appendix 3). Oral accounts from interviews with elders particularly enlightened past processes of ecological and social change.

In connection with the development component of the thesis, interviews with quilombola leaders from nine other communities in Eldorado and Iporanga, namely Abobral, Sapatu, André Lopes, Nhunguara, Ivaporunduva, Galvão, São Pedro, Porto Velho and Praia Grande, were held. I started interviewing quilombolas from communities most susceptible to flooding by the projected dam reservoirs, but I soon realised that many quilombolas not directly threatened by dams also participated in the anti-dam movement MOAB. These interviews dealt mainly with peoples' relationship with the Ribeira de Iguape River, their perceptions of the proposed dams and potential impacts, the rise of MOAB, involvement of the Catholic Church, different strategies employed by the movement with special focus on construction of a quilombola identity, participation in different actions as well as opinions about the future development of the Ribeira Valley (Appendix 4).

Topics of interviews with other key informants varied, depending on their specific involvement, knowledge or positions. Some interviews covered a particular thematic area of one of the papers, while others covered a wide range of issues, relevant for different papers. Other key informants which were not quilombolas included government officials, politicians, consultants, lawyers, researchers, teachers, tourist guides, and representatives from NGOs, social movements, and religious orders. These were held between 2010 and 2013 and comprised the regional anti-dam movement MOAB and EEACONE, the national anti-dam movement MAB, Socio-environmental NGO (ISA), Land, Work and Citizenship Institute (ITTC), the Environmental Defence and Studies Centre in Paraná (CEDEA), Public Attorney's Office (MPF), Land Institute of São Paulo (ITESP), Colonisation and Land Reform Institute (INCRA), Forest Foundation (FF), Atlantic Forest Biosphere Reserve (RBMA), Eldorado Cultural Village, University of São Paulo (USP), Federal University of Rio de Janeiro (UFRJ) and SOS Atlantic Forest.

All interviews were held in Portuguese and lasted on average 50 minutes. Although I speak Portuguese fluently, quilombolas have a different intonation and they use different jargon, so problems of misinterpretation could arise. During the interviews, I took notes in a field book, but I also used a tape recorder upon consent. All but one interview were recorded and later transcribed. I transcribed about half of the interviews myself and contracted a Master student and a PhD student at the University of São Paulo and a member of MST to transcribe the rest. The transcribed interviews aided in double-checking my notes and memory and were used for selection of quotes to be included in the individual papers. It is important to keep in mind that informants' statements are neither 'correct' nor 'false', but rather say something about their relationship to their society and its members (Ellen 1993:223). An interview is thus not a simple recording of objective facts, but an exploration of meaning.

3.3.3 Classification of Land Use in Bombas

Information obtained through participant observation, conversations and interviews with Bombas inhabitants about land use changes in the territory over time was compared with different images of Bombas. I managed to get hold of an aerial photograph of Bombas from 1960 from the Department of Geography at the University of São Paulo. The Bombas territory consisted of 14 separate aerial photos that had to be put together into one before it could be analysed. I also got access to two Landsat satellite images from 1990 and 1999 and one SPOT

satellite image from 2010 from ISA. Land cover of these four images was first classified into three categories based on visual assessment: (1) agricultural activities: home gardens, cultivation plots, and recent fallows of up to 3 years; (2) regenerating forests of 4–10 years; and (3) forest areas > 10 years, calculating the size and number of patches in each class. Changes in land cover and forest patterns through time were so analysed by comparing the aerial photo from 1962 and the three satellite images with ArcGis software. Phd Student Lucia Chamlian Munari from the University of Hohenheim helped me with this. When being a Master student at the University of São Paulo, she had conducted a study of the nearby quilombo São Pedro where she had used a similar analysis of land cover change (Munari 2009, Adams et al. 2013). As the resolutions of the satellite images were not equal, namely 30 m for the Landsat image of 1990, 15 m for the Landsat image of 1999, and 2.5 m for the SPOT image of 2010, it may have affected the visual assessment of land cover and thus the interpretation of the observed changes.

3.3.4 Focus Group Discussion

As a way to address the limitations of the land cover classification of Bombas, a focus group discussion was held in the community in April 2013. This gave me an opportunity to cross-check my own interpretations of land cover changes in the four periods as well as the information obtained through interviews. Due to the poor communication services in Bombas, I had called the then-President's daughter who lived in Iporanga in advance. She had informed the community members upon a visit to the community. The inhabitants had planned to hold an internal meeting about whether or not to accept the territorial proposal presented by the Forest Foundation and invited me to hold my focus group discussion before this meeting. Prior to going to the community, I had printed out laminated images of Bombas from the four different periods as well as the four maps where I had classified land use.

Many inhabitants had showed up, including residents from 'Upper' and 'Lower' Bombas, young and old, men and women. The eight maps of the Bombas territory were put on the wall in the Community Centre. The community members had never seen these images of their territory before, and thought it was interesting to visualise the changes in the landscape over time. I started the focus group discussion by presenting myself, the research objective and research questions, fieldwork, analysis and writing-up to set the stage for the discussion. I then presented Paper 2, without the use of scientific jargon, and highlighted the main research findings and particular issues that I was uncertain about. I asked specific questions about resource use and specific events in order to encourage descriptions of these and experiences shared by community members. The different images of Bombas stimulated discussions, which gave me new insight into why the number and size of agricultural plots had changed across time periods. By giving research participants the opportunity to revise research results, I was able to correct some misunderstandings, strengthening the validity of my analysis.

3.3.5 Analysis of Data

The collection and analysis of data for this thesis has followed an inductive approach, where the data in the field has guided the selection of theoretical concepts used for analysis. Specific observations in the field have thus influenced the development of more general conclusions

and theories. In this sense, case studies can serve to develop general theory, 'since it is through the fieldworker's intimate knowledge of the interconnections among the actors and events constituting the case study or social situation, that the fieldworker is strategically placed to appreciate the theoretical significance of these interconnections' (Ellen 1993:240). Field data was used to analyse the different nested cases and by drawing on data from similar studies and theoretical literature. For analysis of qualitative data, I used notes in my field diary, minutes from meetings, transcribed interviews and memory. Some interviews dealt specifically with one of the nested cases and were used as basis for one of the individual papers. Other interviews covered a wide range of topics and were therefore analysed more than once. I read through the transcribed interviews and highlighted statements of particular relevance. These highlighted statements were collected in a separate document, each for each paper addressing a research question. When writing my individual papers I constantly referred back to these documents to cross-check interpretations as well as to choose specific quotes for inclusion.

The advantage of having partly lived in Brazil throughout the entire PhD period has given me the opportunity to gain a close connection with research participants and conduct follow-up interviews. As the significance of events which have taken place during the fieldwork period could not be determined *a priori*, I have gathered much more data than I draw upon for analysis. The empirical material collected for this thesis is thus much richer than reflected in the four individual papers. Since I have chosen to write an article-based thesis, I have been restricted by different word limits set by the selected peer-reviewed journals. Due to this, I have, for instance, not given much attention to gender issues although important for understanding of the gendered character of environmental knowledge and practice, gendered organisation of labour and gendered differences in institutions and outcomes of different policies. Quilombola women's involvement in the establishment of the Women's Movement in the Ribeira Valley in the 1990s and women's role in MOAB were briefly touched upon in Paper 4. However, much more could have been said about their active engagement in these movements – how women have initiated protests, formulated strategies and mobilised resources necessary for successful collective actions – as well as how women have benefited from infrastructural development. Ellen (1993) states that 'surplus' of data is the experience of probably all researchers doing participant observation and spending a long period in the field. At the same time, there are questions that should have been explored in more depth, but due to my unawareness of their importance when collecting data, did not get adequate attention. An example of this is quilombolas' land tenure arrangements.

4. SUMMARY OF INDIVIDUAL PAPERS

4.1 Exclusion's Double-Edge: Challenges for the Realisation of Afro-Brazilian Quilombos' Rights to Land

The first paper investigates the historical origin of quilombos in Brazil, the evolution of the legal framework addressing quilombos' rights to land and multi-scale constraints impeding quilombos from fulfilling these. Randi Kaarhus and I examine the dilemmas and debates quilombos' land rights – enacted in 'transitory' Article 68 in the 1988 Constitution – invoke, focusing on how quilombola identity and land titling processes are understood locally while

the context and procedures for the legal recognition of land rights are defined at the scales of the state and the federal government. In its analysis of historical and contemporary processes of exclusion of quilombos from land, the article draws upon the concepts of 'regulation', 'force' and 'legitimation' from political-ecology literature, enabling insights into why conflicts over land emerge and how these are played out. This approach also allows attention being paid to 'exclusion's double edge'; that access for some ultimately result in exclusion of others and the emergence of new dilemmas. The primary data analysed in this paper was obtained through participant observation in the quilombo Bombas in the Ribeira Valley, São Paulo, attendance in different meetings, public hearings and the holding of 60 open-ended interviews with different key informants between 2010 and 2013. Research findings show that both external political and economic interests in quilombola lands, as well as internal disagreements about collective identity recognition and property rights have made the realisation of quilombos' land rights difficult. At the level of Brazilian federal government, disagreement over definition of quilombos, inter-ministerial disputes over responsibility, shifting state agendas, inertia and bureaucratic procedures – owing to political pressures by powerful actors – have impeded the creation of an effective titling program. At the state level, land agencies tend not to title quilombola land that is in conflict with private and public use claims. Due to competing land claims, most titled quilombos have only been partly titled, third parties have not been expropriated and land conflicts carry on. At the local scale, the construction of a quilombola identity have spurred internal conflicts because some families holding individual titles oppose a collective quilombo title, which cannot be sold. Internal disagreements over quilombola status was illustrated with the case of the community of Bombas, which has claimed quilombola recognition as a way to legalise settlement and resource use inside the Upper Ribeira State Touristic Park (PETAR). Based on research findings, we argue that quilombos' rights to land must be prioritised as a way forward – towards a situation characterised by a more equal distribution of land ownership in Brazil – but also for historical injustices to be restored in the thousands of quilombos scattered throughout this vast country.

This paper was submitted to *Latin American and Caribbean Ethnic Studies* 10 February 2016.

4.2 Social-Ecological Changes in a Quilombola Community in the Atlantic Forest of Southeastern Brazil

The second paper focuses on the quilombo Bombas, which is completely overlapped by the strictly protected area of PETAR, not allowing for human residence and activities. The paper explores how the inhabitants of Bombas have responded to and shaped social-ecological changes in the Atlantic Forest from the community's settlement in the 1910s to present. Traditional resource use practices and social organisation at the time of settlement are compared to four events; (1) the increased investment in the region in the 1930s–1970s, (2) the implementation of PETAR during the 1980s–1990s, (3) the process of constructing a quilombola identity in the 2000s and (4) the negotiation over land rights with forest authorities between 2010 and 2013. As a means to analyse processes of change, I combined the adaptive cycle from ecological resilience theory with insights from political ecology. Primary data were obtained from participant observation in Bombas, open-ended in-depth interviews, traditional oral accounts, attendance in meetings, and classification of land use and comparison of an aerial photo of Bombas from 1962 and three satellite images from 1990, 1999 and 2010 by the use of ArcGis software. Classification of land use and interpretation

were cross-checked in a focus group discussion held with Bombas inhabitants. The collected data revealed that overall, there has been a reduction of agricultural activity in Bombas accompanied by a general increase in regenerating forest and mature forest and that the vegetation profile has changed from a heterogeneous to a more homogeneous forest. Bombas has gone through two linked and consecutive adaptive cycles of ecological, political, institutional and social change over the last century. Population density, social networks, cultural practices and agricultural activities reached a climax in the 1970s when also agro-biodiversity was believed to be the highest. This was explained by the active use of shifting cultivation practices, which produced a patchier and more complex forest structure, holding a wide range of habitat niches for wild and cultivated plant and animal communities. Field data further revealed that environmental restrictions, social policies of state transfer payments and distribution of food packages have contributed to decreased engagement in agricultural practices, weakened social cohesion and led to loss of traditional knowledge and reduced agro-biodiversity. The paper argues that the interaction among various development, environmental and social policies and interventions has affected Bombas residents' land use with cumulative effects on their livelihoods and the ecology of the local forest. The claim to land rights based on a quilombola identity and recent negotiations with forest authorities insinuate a shift of this trend. Contrary to dominant conservation narratives that traditional small-scale livelihoods are unproductive, destructive and cause environmental degradation, the findings indicate that small-scale shifting cultivation practices by the quilombolas have the potential to increase structural ecological complexity of the Atlantic Forest. The paper concludes that legalisation of settlement and subsistence activities are important not only for livelihood security and social cohesion of Bombas inhabitants, but also likely for biodiversity conservation.

This paper was published open access in *Human Ecology* (2014) 42:913–927, DOI 10.1007/s10745-014-9691-3.

4.3 Justice in an Unequal Relationship? Negotiations Between the Quilombo Bombas and the Upper Ribeira State Touristic Park, Brazil

The third paper analyses the spaces for and processes of negotiation over strictly protected areas through an examination of the land claim of the Afro-Brazilian quilombola community Bombas located inside the Upper Ribeira State Touristic Park (PETAR), São Paulo. The paper explores a negotiation process over territorial rights to Bombas from 2010 to 2014, involving the quilombola association of Bombas, state officials, researchers and civil society organisations. The three dimensions of environmental justice – distribution, recognition and participation – were combined with insights from political ecology on historical marginalisation, contemporary social relations, institutional configurations and discourses. The empirical data was obtained through ethnographic fieldwork in Bombas, 30 open-ended in-depth interviews and attendance in 12 meetings dealing with the negotiation over rights to the Bombas territory. Minutes from meetings and conversations with involved actors provided additional insight into the case. Spaces for negotiation were opened with the promulgation of 'transitory' Article 68 in the 1988 Constitution, the National System of Conservation Units (SNUC) law from 2001 and the São Paulo Environmental Office's Resolution 29/2010, aimed at resolving overlapping situations between quilombola territories and strictly protected areas. Despite this, patterns of exclusion were found to persist in the Brazilian state apparatus. This was seen in the forest authorities' dismissive disposition towards quilombos, the use of

informal decisions to stop the quilombola recognition process, the use of exclusionary practices in the research and negotiation process through lack of commitment, and the use of exclusionary discourses of Bombas residents as 'forest destroyers' and local incompetence to manage natural resources. The negotiation meetings served as a forum for challenging the unequal power imbalances between the quilombo and the state, but did not open up space for meaningful participation where quilombolas' voice did significantly influence the agenda and key decisions. Bombas was – finally – officially recognised as a quilombo in 2014, but only after having given up 648 hectares of their territory in Córrego Grande, and having filed a lawsuit against the state. The paper ends by arguing that for justice to be attained in the unequal relationship between the quilombo and the state, the quilombola association's claims for regularised land title, retrieval of PETAR's overlapping boundaries and access to infrastructural development need to be fulfilled without delay.

This paper was published in *Society and Natural Resources: An International Journal* (2016) 29 (1):20-35, DOI: 10.1080/08941920.2015.1024809

4.4. "Land Yes, Dam No!" Justice-Seeking Strategies by the Anti-Dam Movement in the Ribeira Valley, Brazil

The fourth paper examines how environmental justice dimensions have been articulated across scales by the "Movement of People Threatened by Dams" (MOAB) in the Ribeira Valley, Brazil. Four dams have been proposed to be built on the Ribeira de Iguape River – so far the only undammed large river left in the states of São Paulo and Paraná – with implications for the environment and inhabitants of the region. The rise of MOAB and the development of its strategies against dams are analysed by adopting a multidimensional and multi-scalar approach, emphasising the interplay between 'scales of meaning' and 'scales of regulation'. 'Scales of meaning' refer to the scales where a problem is experienced and framed in political discourse while 'scales of regulation' refer to the scales where a problem can be politically addressed. Empirical data were obtained from 60 open-ended interviews with key informants between 2010 and 2013, attendance in meetings organised by the regional and national anti-dam movements, as well as various workshops and seminars in different quilombola communities discussing the dam proposals. Research findings show that the resurgence of democracy in Brazil in 1985 – providing a political opening for social mobilisation – and the engagement of the Pastoral Catholic Church in the Ribeira Valley were crucial for the formation of MOAB. MOAB's anti-dam campaign began from an instance of 'militant particularism', mobilising Afro-Brazilians around local livelihood and socioecological issues linked to threats posed by dams, protected areas and encroaching farmers. At the outset, Afro-Brazilian communities appealed to state regulatory institutions to claim quilombola recognition and land rights. However, the movement's agenda quickly broadened to include distributive and procedural issues and new strategies were adopted to influence the scale of regulation. Depending on the framing of the problem – either linked to misrecognition, lack of access to citizen rights, lack of access to the Environmental Impact Assessment of the Tijuco Alto dam, lack of public hearings or lack of prior consultations – MOAB addressed different scales of government and organisations for recourse. The explanations for this scale transformation, from contesting local injustices to challenging state, national and international political structures, include the growth of networks and the articulation of MOAB's claims at multiple scales. MOAB has 'scaled up' its advocacy efforts for energy democracy and an alternative development model, but it still takes action at the

local scale and continues to use early strategies based on litigation and claims for quilombola recognition and citizen rights. The paper argues that MOAB has moved beyond 'militant particularism' by framing the meaning of the problem at different scales and by invoking a range of geographical scales to mobilise different allies to support its claims for recognition, access to resources and procedural justice. The concluding argument of the paper is that MOAB has successfully used different scales for framing, mobilisation and action and that this has contributed to the dam project being put on hold for almost three decades.

This paper was submitted to the *Journal of Peasant Studies* on November 3 2015.

5. SYNTHESIS OF MAIN FINDINGS AND OVERALL CONCLUSION

This thesis set out to investigate how quilombolas, Afro-Brazilian local populations descending from slaves, have responded to top-down conservation and development initiatives and what challenges they have met when trying to realise their constitutional rights to land. The thesis consists of four individual papers that provide insight into different strategies adopted by quilombolas in the Ribeira Valley over time and space. At the community level, initial resistance to the implementation of strictly protected areas in the mid-1980s – which overlapped quilombola territories – took the form of what Scott (1985) refers to as 'everyday forms of resistance'. This implies that community residents attempted to evade rather than obey park regulations, continuing most subsistence practices in areas of difficult access. Still, the threats of removal by forest authorities, the fear of being fined for engaging in traditional subsistence activities and the lack of alternative income generating activities in the communities resulted in many inhabitants leaving in search for a better life outside. The reduced work force in the communities and the cultivation of unsuitable areas – in an attempt to hide from forest authorities – resulted in unrecovered forest patches and insufficient food production. Furthermore, since forest authorities considered the quilombolas as illegal dwellers inside protected areas, the community members became excluded from social services and infrastructural development, which complicated the continuation of livelihood activities. As a response, inhabitants started to change their strategy. Instead of hiding, they began a process of being heard and seen, seeking to legitimise their presence within their historical territories and their livelihood practices.

To the quilombolas, threats posed by protected areas added to threats posed by encroaching farmers and the planned building of four dams on the main river in the Ribeira Valley, which culminated in mobilisation of rural Afro-Brazilian communities and the establishment of the 'Movement of People Threatened by Dams' (MOAB) in 1989. One of the first strategies of MOAB was for different Afro-Brazilian communities to self-identify as 'quilombola' and organise into quilombola associations with encouragement and support from the Pastoral Catholic Church. It was understood that official recognition as quilombos could result in the attainment of collective titles to their lands – as stipulated in 'transitory' Article 68 in the 1988 Constitution – and could thus legalise human settlement within protected areas, aid in conflict resolution with encroaching farmers and strengthen their negotiation power with private and government agencies involved in the dam project. What 'quilombola' signified and the opportunities and perils such an identity presented were discussed in numerous community meetings, which initiated a complex process of constructing a local quilombola identity; an identity previously unknown to local inhabitants. In the mid-1990s, a few

communities pleaded recognition as quilombos and land titles from the state of São Paulo and registered quilombola associations. When the first quilombos were recognised in 1998, other nearby communities with similar historical backgrounds started to formulate demands for recognition and to join MOAB.

Although the quest for quilombola recognition did not lead to automatic recognition from the state, the organisation into quilombola associations opened up for negotiation over territorial rights with the state. In public hearings and in negotiation meetings between quilombolas and the state, strict protection policies aiming to separate people from 'nature' were contested. By pointing to their presence prior to the creation of the Park, quilombolas contested preconceived notions of the Atlantic Forest as 'pristine'. Also, by arguing that their territories continue to be covered by Atlantic Forest in advanced stages, they challenged the discourse labelling them as 'forest destroyers'. In contrast, quilombolas appropriated a 'green' (sustainability) discourse valuing them as legitimate stewards of biodiversity. Quilombolas argued that their resource practices and their knowledge are important for biodiversity conservation and should be taken into account when decisions over territorial governance are made. This thesis supports the quilombolas' arguments, showing that their past and present natural resource management practices have contributed to shape and maintain a complex agro-forest system, enriching the Atlantic Forest. Conversely, enforcement of strict environmental policies was found to have resulted in the use of unsustainable resource practices and decreased engagement in agricultural practices, which has ultimately led to reduced agro-biodiversity, thus producing the opposite effects of the aims of conservation.

Quilombolas also challenged the dominant direction and meaning of development in Brazil. In their struggle against the construction of large dams on the Ribeira de Iguape River, quilombolas pointed to impacts elsewhere in Brazil and the rest of the world. This helped to draw connections between local struggles and global problems. MOAB started early on to build networks with dam-affected people, traditional communities, civil society organisation, government agencies, independent researchers, politicians and lawyers from different geographic localities, allowing mobilisation to go beyond the Ribeira Valley. With assistance from its allies, MOAB launched an awareness-raising campaign, organised protest rallies, closed toll stations on strategic highways and occupied different government and private company buildings. Through these protests, MOAB demanded recognition of quilombos and land titles, access to social services and infrastructural development and challenged the lack of prior consultation about the planned dams, lack of involvement in the undertaking of the environmental impact assessment and the lack of public hearings and prior consultations. The movement's demands became more complex over the years and a wide range of strategies were used to approach agencies at municipal, state, federal and international levels for recourse. MOAB does not reject development *per se*, as is often claimed by opponents, but advocates for an alternative and more sustainable development model in the region based on small businesses, ecotourism and market-oriented agro-forest production.

The outcomes of quilombolas' resistance against top-down conservation and development projects have been many. Strategies for *recognition* have contributed to a total of 25 quilombola communities having been officially recognised in the Ribeira Valley, of which six have been titled and one title has been registered in the Notary's Office. Official recognition as quilombos have resulted in a re-definition of boundaries between protected areas and quilombola territories – eliminating the overlapping situation – and to re-classification of quilombos into sustainable use area. The five first quilombos recognised in 1998

(Ivaporunduva, Maria Rosa, Pilões, Pedro Cubas and São Pedro) were all excluded from the strictly protected Intervales State Park and later included in the Jacupiranga Mosaic as sustainable use areas. Together with seven other quilombos in the Ribeira Valley, they make up the Environmental Protected Areas (APA) of the Quilombos of Medium Ribeira, where they are members of the Mosaic's steering committee. Also Bombas, which is overlapped by the Upper Ribeira State Touristic Park (PETAR), managed to be recognised as a quilombo in 2014 after having entered a negotiation process with state authorities and having filed a lawsuit against the state. Strategies for *distributive justice* have resulted in many quilombola communities getting access to social services and public programs set up to improve the situation of quilombolas. Many quilombos have also benefited from infrastructural development from the government as well as from alternative income generating activities initiated by NGOs. Strategies for *participation* have resulted in the quilombola association of Bombas being involved in all the steps of the negotiation process over territorial rights with state authorities, and ensured MOAB participants' access to government authorities, access to the environmental impact assessment, realisation of five public hearings and the promise of prior consultation with quilombola communities. The combination of claims and strategies used by MOAB has contributed to the Tijuco Alto dam project being put on halt, and the Ribeira de Iguape River to continue to be the only undammed large river in the states of São Paulo and Paraná. Based on these research findings, the thesis argues that resistance matters.

At the same time, the thesis points to the limits of local agency and collective action, showing that exclusionary practices and discourses continue to be used by state and private actors against quilombolas. This hinder them from realising their rights to land and from meaningful participation in decisions that affect their lives. This was seen in the negotiation process where forest authorities prevented quilombolas from significantly influencing the agenda and key decisions. The forest authorities' use of arguments in favour of strict protection of Córrego Grande resulted in Bombas losing this area to PETAR. The boundaries of PETAR have still not been retrieved from the Bombas territory and no road has so far been built, showing the lack of commitment from responsible state agencies. The thesis also points to how powerful groups lobby against quilombos' rights to land due to fear that the implementation of the quilombo provision will result in expropriation of large land areas from established landowners, and render land inaccessible to other uses. The filing of the Direct Unconstitutionality Action 3239 and Proposed Constitutional Amendment 215 as well as the agribusiness lobby's influence in Congress are signs that Brazil is now taking a regressive approach to addressing quilombolas. Actually, ever since the promulgation of the 1988 Constitution, the government has shown a lack of political will and leadership in implementing the quilombo provision, demonstrated by the long, slow and confusing titling processes and unresolved land ownership status in thousands of quilombola communities throughout Brazil. This has in turn contributed to increase local conflicts between quilombos and established landowners, as well as among quilombola residents posing different kinds of claims to the land. These conflicts pose direct threats to quilombolas' lives. Based on these research findings, the thesis argues that it is important that quilombos' rights to land ownership are prioritised as a way towards a more equal land distribution in Brazil and for historical injustices to be compensated.

The research findings show the importance of using an interdisciplinary approach to investigate a complex situation of resources, rights and identities. The integration of concepts at the interface of political ecology, environmental justice and resilience has enabled new insights into how social struggles on the ground are embedded in broader ecological and

political-economic processes and nested within multiple temporal and spatial scales. Although the focus and type of analysis differ among the four individual papers, the thesis is unified by a common approach to politics as a contested and negotiated domain in continual dialectic relationship with the biophysical environment. The overall analysis illustrates that the interactions between international and national frameworks on indigenous and quilombola populations, conservation and development initiatives at the state and federal level, and local livelihoods and struggles are highly complex and produce contradictory outcomes as they both create new opportunities but also contribute to the emergence of new conflicts, both within and among groups.

Although the findings of this thesis are based on data collected in the Ribeira Valley in south-eastern Brazil, the observed patterns can lead to theoretical and analytical insight informing the study of other marginalised peoples' contestation of top-down nature conservation and development projects elsewhere in the world. By referring to and comparing with knowledge already accumulated in a 'local research frontier' (Mjøset 1999), this thesis has contributed to knowledge generation on human-environment relations, ethnic identity construction and social movements. The thesis' focus on how rights emerge, how understandings of rights evolve over time, how rights are used to advance goals and how rights are contested do not only adhere to quilombolas but also to other Afro-American populations and indigenous peoples in Latin America (e.g. Wade 1995, Escobar 1998, French 2004) and other marginalised peoples on other continents (Li 2004). This thesis thus contributes to knowledge on how the insertion of rights for socially marginalised peoples is an important first step toward justice, but also highlight the challenges of realising such rights. National constitutions and international legal frameworks, including the ILO Convention 169 and the UN Declaration on Indigenous Peoples, are important legal references for indigenous and traditional peoples' practices and knowledge and for legitimating their claims to land, resources and involvement in decision-making. Still, rights to difference are increasingly contested by powerful groups. This is not only evident in Brazil, but in the rest of the world, where landed elites and private companies gain increasing power in decisions over use and control of natural resources. Quilombolas and other marginalised groups around the world thus continue to struggle for rights and resources, and more research is needed to look into how claims over natural resources are made in the name of 'environmental protection' or 'economic development' and how such claims are contested.

REFERENCES

Acselrad, H. 2008. "Grassroots reframing of environmental struggles in Brazil." In *Environmental justice in Latin America: problems, promise, and practice*, edited by D. Carruthers, 75-97. Cambridge: MIT Press.

Adams, W. 1997. "Rationalization and conservation: ecology and the management of nature in the United Kingdom." *Transactions of the Institute of British Geographers* NS 22:277-291.

Adams, W. 2009. *Green development: environment and sustainability in a developing world.* London: Routledge Press.

Adams, C., L. C. Munari, N. van Vliet, R. S. S. Murrieta, B. A. Piperata, C. Futemma, N. N. Pedroso, Jr., C. S. Taqueda, M. A. Crevelaro, and V. L. Spressola-Prado. 2013. "Diversifying incomes and losing landscape complexity in quilombola shifting cultivation communities of the Atlantic rainforest (Brazil)." *Human Ecology* 41 (1):119-137. doi: 10.1007/s10745-012-9529-9.

Almeida, M. W. B. 2002. "Os quilombos e as novas etnias." In *Quilombos: identidade étnica e territorialidade*, edited by E. C. O'Dwyer, 43-81. Rio de Janeiro: Editora FGV.

Alvarado-Mora, M.V., L. Botelho, M. S. Gomes-Gouvêa, V. F. de Souza, M. C. Nascimento, C. S. Pannuti, F. J. Carrilho and J. R. R. Pinho. 2011. "Detection of hepatitis B virus subgenotype A1 in a quilombo community in Maranhão Brazil." *Virology Journal* 8: 415.

Alves, H. P. F and D. J. Hogan. 2009. *Demographic and socio-economic drivers of deforestation in the Brazilian Atlantic forest: a GIS integration of census and remote sensing data at different spatial scales.* Paper presented at the 7th International Science Conference on the Human Dimensions of Global Environmental Change held in Bonn, Germany.

Amorim, C. R. 1998a. *Relatório técnico científico sobre a comunidade de quilombo de Maria Rosa, localizada no município de Iporanga/São Paulo*. São Paulo: ITESP.

Amorim, C. R. 1998b. *Relatório técnico científico sobre a comunidade de quilombo de Pilões, localizada no município de Iporanga/São Paulo.* São Paulo: ITESP.

Andrade, A. M. and K. Thorkildsen. 2011. "Quilombo de Bombas e Fundação Florestal buscam solucionar sobreposição." Notícias Socioambientais, 9 March.

Andrade, A. M., and N. Tatto. 2013. *Inventário cultural de quilombos do Vale do Ribeira*. São Paulo: Instituto Socioambiental.

ANEEL. 2013. *Expansão da oferta de energia elétrica.* Brasília: Agência Nacional de Energia Elétrica.

Arruti, J. M. 2006. *Mocambo: Antropologia e história do processo de formação quilombola.* Bauru, SP: Edusc.

Baptista, F. M. and K. Thorkildsen. 2010. "The Belo Monte dam: a camel in the tent?" Norlarnet: http://www.norlarnet.uio.no/news/behind-the-news/2011/belo_monte.html

Barboza, L. S. 2006. *Identidade e movimentos sociais: o caso do Moviemento dos Atingidos por Barragens.* Rio de Janeiro: Universidade Federal do Rio de Janeiro.

Barth, F. 1969. *Ethnic groups and boundaries: the social organization of culture difference.* Bergen, Oslo: Universitetsforlaget.

Begossi, A. 1998. "Resilience and neotraditional populations: the caiçaras (Atlantic forest) and caboclos (Amazon)." In *Linking social and ecological systems for resilienc and sustainability*, edited by F. Berkes and C. Folke, 129-157. Cambridge: Cambridge University Press.

Benjaminsen, T. A. and P. Robbins. 2015. "Introduction: Nordic political ecologies." *Norsk Geografisk Tidsskrift -Norwegian Journal of Geography* 69 (4):191-196.

Berkes, F., J. Colding and C. Folke. 2003. *Navigating social-ecological systems: building resilience for complexity and change.* New York: Cambridge University Press.

Bermann, C. 2007. "Impasses and controversies of hydroelectricity." *Estudos Avançados* 21 (59):139-153.

Beymer-Farris, B. A. and T. J. Bassett. 2012. "The REDD menace: resurgent protectionism in Tanzania's mangrove forests." *Global Environmental Change* 22 (2):332-341.

Beymer-Farris, B. A., Bassett, T. and I. Bryceson. 2012. "Promises and pitfalls of adaptive management in resilience thinking: the lens of political ecology." In *Resilience and the cultural landscape*, edited by T. Plieninger and C. Bielingm, 283-299. Cambridge: Cambridge University Press.

Beymer-Farris, B. A. 2013. "Producing biodiversity in Tanzania's mangrove forests? A combined political ecology and ecological resilience approach to 'sustainably utilized landscapes'." In *Land change, political ecology, and sustainability*, edited by C. Brannstrom and J. M. Vadjunec, 84-106. Oxon: Routledge.

Blaikie, P. 1985. *Political economy of soil erosion in developing countries*. London: Longman.

Blaikie, P. and H. Brookfield. 1987. *Land degradation and society*. London: Methuen.

Blaikie, P. 2008. "Epilogue: toward a future for political ecology that works." *Geoforum* 39: 756-772.

Brazil. 2010. *Constitution of the Federative Republic of Brazil.* 3rd edition. Brasília: Documentation and Information Center, Publishing Coordination.

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

Brosius, J. P., A. L. Tsing and C. Zerner. 2005. "Communities and conservation: histories and politics of Community-Based Natural Resource Management." Walnut Creek: Altamira Press.

Brown, J. C. and M. Purcell. 2005. "There's nothing inherent about scale: political ecology, the local trap, and the politics of development in the Brazilian Amazon." *Geoforum* 36:607-624.

Brown, K. 2014. "Global environmental change I: a social turn for resilience?" *Progress in Human Geography* 38 (1):107-117.

Bryant, R. and S. Bailey. 1997. *Third world political ecology*. New York: Routledge.

Bryant, R. L. 1998."Power, knowledge and political ecology in the third world." *Progress in Human Geography* 22:79-94.

Bullard, R. D. 1983. "Solid waste sites and the Black Houston community." *Sociological Inquiry* 53:273-288.

Bullard, R. D. and B. H. Wright. 1990. "The quest for environmental equity: mobilizing the African-American community for social change." *Society and Natural Resources* 3:301-311.

Bunker, S. G. 1985. *Underdeveloping the Amazon: extraction, unequal exchange, and the failure of the modern state*. Urbana, IL: University of Illinois Press.

Čapek, S. M. 1993. "The 'environmental justice' frame: a conceptual discussion and an application." *Social Problems* 40:5-24.

Cardoso, L. and L. Gomes. 2011. *Movimento social negro e movimento quilombola: para uma teoria da tradução*. Paper presented at the XI Congresso Luso Afro-Brasileiro de Ciências Sociais, Salvador, 7-10 August.

Carril, L. F. B. 1995. "Terras de negros no Vale do Ribeira: territorialidade e resistência." Master diss., University of São Paulo.

Carruthers, D. V. 2008. *Environmental justice in Latin America: problems, promise, and practice*. Cambridge, Mass.: MIT Press.

Carvalho, M. C. P. and A. Schmitt. 2002. *Relatório técnico-científico sobre a comunidade de quilombo do Nhunguara, localizada nos municípios de Eldorado e Iporanga/São Paulo*. São Paulo: ITESP.

Cassel, J. 2002. "Perturbing the system: 'hard science', 'soft science', and social science, the anxiety and madness of method." *Human Organization* 61 (2):177-185.

Castro, D. F, A. D. Siqueira, E. S. Brondízio and L. C. Ferreira. 2006. "Use and misuse of the concepts of tradition and property rights in the conservation of natural resources in the Atlantic forest (Brazil)." *Ambiente & Sociedade* 9 (1):23-39.

Cavanagh, C. J. and T. A. Benjaminsen. 2015. "Guerrilla agriculture? A biopolitical guide to illicit cultivation within an IUCN Category II protected area." *The Journal of Peasant Studies* 42 (3-4):725-745.

Coelho, V. S. P. and A. Favareto. 2008. "Questioning the relationship between participation and development: a case study of the Vale do Ribeira, Brazil." *World Development* 36 (12):2937-2952.

Conrad, R. E. 1994. *Children of God's fire: a documentary history of black slavery in Brazil*. Pennsylvania: Pennsylvania State University Press.

CPI-SP. 2015. "Terras quilombolas." Comissão Pró-Índio de São Paulo. Accessed 17.06.2015. http://www.cpisp.org.br/terras/asp/terras_tabela.aspx.

Crotty, M. 1998. *The foundations of social research: meaning and perspective in the research process*. Thousand Oaks: Sage Publications.

Dagnino, E. 2005. "'We all have rights, but...' Contesting concepts of citizenship in Brazil." In *Inclusive citizenship: meanings and expressions*, edited by N. Kabeer, 149-163. London: Zed Books.

Davidson, D. J. 2010. "The applicability of the concept of resilience to social systems: some sources of optimism and nagging doubts." *Society and Natural Resources* 23: 1135–1149.

Dean, W. 1996. *With broadax and firebrand: the destruction of the Brazilian Atlantic forest*. Berkeley: University of California Press.

Diegues, A. C. 1998. *The myth of untamed nature in the Brazilian rainforest*. São Paulo: NUPAUB.

Diegues, A. C. 2007. *O Vale do Ribeira e litoral de São Paulo: meio-ambiente, história e população.* São Paulo: CENPEC.

Editorial. 2004. "Ethics in political ecology: a special issue of Political Geography. Introduction: thinking about ethics in political ecology." *Political Geography* 23:807-812.

Ellen, R. 1993. *Ethnographic research: a guide to general conduct, research methods in social anthropology*. London: Academic Press Limited.

Escobar, A. and S. E. Alvarez. 1992. *The making of social movements in Latin America: identity, strategy, and democracy*. Boulder, Colo.: Westview Press.

Escobar, A. 1996. "Constructing nature: elements for a post-structural political ecology." In *Liberation ecologies: environment, development, social movements*, edited by R. Peet and M. Watts, 46-68. London: Routledge.

Escobar, A. 1998. "Whose knoweldge, whose nature? Biodiversity, conservation, and the political ecology of social movments." *Journal of Political Ecology* 5:53-82.

Escobar, A. 1999. "After nature: steps to an antiessentialist political ecology." *Current Anthropology* 40 (1):1-30.
Escobar, A. 2012. *Encountering development: the making and unmaking of the third world*. Princeton: Princeton University Press.
Esterci, N. and A. Fernandez. 2009. "O legado conservacionista em questão." *Revista Pós Ciências Sociais* 6 (12):15-40.
Fairhead, J. and M. Leach. 1996. *Misreading the African landscape: society and ecology in a forest-savanna mosaic.* Cambridge: Cambridge University Press.
Fantini, A. C. and R. P. Guries. 2007. "Forest structure and productivity of palmiteiro (*Euterpe edulis Martius*) in the Brazilian Mata Atlântica." *Forest Ecology and Management* 242:185-194.
Farfán-Santos, E. 2015. "'Fraudulent' identities: the politics of defining quilombo descendants in Brazil." *The Journal of Latin American and Caribbean Anthropology* 20 (1):110-132.
Fearnside, P. M. 2001. "Environmental impacts of Brazil's Tucuruí dam: unlearned lessons for hydroelectric development in Amazonia." *Environmental Management* 27 (3):377-396.
Fearnside, P. M. 2006. "Dams in the Amazon: Belo Monte and Brazil's hydroelectric development of the Xingu River Basin." *Environmental Management* 38 (1):16-27.
Ferreira, L. C., S. O. Siviero, S. V. de Campos, P. C. B. Silveira, V. G. de Oliveira, A. B. V. Mendes and A. O. Pinto. 2001. "Conflitos sociais em áreas protegidas no Brasil: moradores, instituições e ONGs no Vale do Ribeira e Litoral Sul, SP." *Idéia.* 8 (2): 115-150.
Ferreira, L. C. 2004. "Dimensões humanas da biodiversidade: mudanças sociais e conflitos em torno de áreas protegidas no Vale do Ribeira, SP, Brasil." *Ambiente & Sociedade* 7:47-66.
Figueiredo, L. A. V. 2000. "'O meio ambiente prejudicou a gente…' – políticas públicas e representações sociais de preservação e desenvolvimento." Master diss., University of Campinas.
Fillipine-Alba, J. M and C. R. de Souza Filho. 2010. "GIS-based environmental risk assessment in the Ribeira Valley, São Paulo, Brazil." *Environmental Earth Science* 59: 1139–1147.
Firestone, L. 2002. *Prior informed consent: guiding principles and concrete models.* São Paulo: Instituto Socioambiental.
Fluehr-Lobban, C. 2003a. "Darkness in Eldorado: research ethics then and now." In *Ethics and the profession of anthropology. Dialogue for ethically conscious practice,* 2nd edition, edited by C. Fluehr-Lobban, 85-106. Oxford: Altamira Press.
Fluehr-Lobban, C. 2003b. "Informed consent in anthropological research. We are not exempt." In *Ethics and the profession of anthropology. Dialogue for ethically conscious practice,* 2nd edition, edited by C. Fluehr-Lobban, 159-177. Oxford: Altamira Press.
Forsyth, T. 2008. "Political ecology and the epistemology of social justice." *Geoforum* 39:756–764.
Forsyth, T. and A. Walker. 2008. *Forest guardians, forest destroyers: the politics of environmental knowledge in northern Thailand*. Seattle: University of Washington Press.
Fraser, N. 1998. "Social justice in the age of identity politics: redistribution, recognition, and participation." *The Tanner Lectures on Human Values* 19:2-67.
Fraser, N. 2000. "Rethinking recognition." *New Left Review* May/June: 107-120.

French, J. H. 2004. "Mestizaje and law making in indigenous identity formation in the northeast Brazil: 'After the conflict came the history'." *American Anthropologis*t 106 (4):663-674.
French, J. H. 2006. "Buried alive: imagining Africa in the Brazilian northeast." *American Etnologists* 33 (3):340-360.
French, J. H. 2009. *Legalizing identities: becoming Black or Indian in Brazil's northeast*. Chapel Hill: University of North Carolina Press.
Galindo-Leal, C. and I. G. Câmara. 2003. *The Atlantic forest of South America: biodiversity status, threats, and outlook*. Washington: Island Press.
Geisler, C. 2003. "A new kind of trouble: evictions in Eden." *International Social Science Journal* 55 (1):69-78.
Gerring, J. 2004. "What is a case study and what is it good for?" *American Political Science Review* 98 (2):341-354.
Giacomini, R. L. B. 2010. *Conflito, identidade e territorialização. Estado e comunidades remanescentes de quilombos do Vale do Ribeira de Iguape-SP*. Doctoral diss., University of São Paulo.
Giraudo, A. R. 2003. "Dynamics of biodiversity loss in the Argentinean Atlantic forest: an introduction." In *The Atlantic forest of South America: biodiversity status, threats, and outlook*, edited by C. Galindo-Leal and I.G. Câmara, 139-140. Washington: Island Press.
Goerck, J. M. 1997. "Patterns of rarity in the birds of the Atlantic forest of Brazil." *Conservation Biology* 11 (1):112-118. doi: 10.1046/j.1523-1739.1997.95314.x.
Goffman, E. 1974. *Frame analysis: an essay on the organization of experience*. Cambridge, MA: Harvard University Press.
Gomez-Pompa, A. and A. Kaus. 1992. "Taming the wilderness myth." *Bioscience* 42 (4):271-279.
Graham, L. R. 2006. Anthropologists are obligated to promote human rights and social justice: especially among vulnerable communities. *Anthropological News* 47 (7):4-5.
Guha, R. 1994. "Radical environmentalism: a third-world critique." In *Ecology: key concepts in critical theory*, edited by C. Merchant. Atlantic Highlands, N.J.: Humanities Press.
Guha, R. and J. Martinez-Alier. 1997. *Varieties of environmentalism: essays North and South.* London: Earthscan.
Gunderson, L. and C. S. Holling. 2002. *Panarchy. Understanding transformations in human and natural systems*. Washington: Island Press.
Hacking, I. 1999. *The social construction of what?* Cambridge/ Massachusetts: Harvard University Press.
Hajer, M. A. 1995. *The politics of environmental discourse: ecological modernization and the policy process*. Oxford: Clarendon Press.
Hall, A. and S. Branford. 2012. "Development, dams and dilma: the saga of Belo Monte." *Critical Sociology 38* (6):851-862.
Hall, D., P. Hirsch and T. M. Li. 2011. *Powers of exclusion: land dilemmas in Southeast Asia*. Singapore: NUS Press.
Hanazaki, N., F. de Castro, V. G. Oliveira and N. Peroni. 2007. "Between the sea and the land: the livelihood of estuarine people in southeastern Brazil." *Ambiente & Sociedade* 10 (1):121-136.
Hecht, S. and A. Cockburn. 1989. *The fate of the forest*. London: Verso.
Hickey, S. and G. Mohan. 2004. *Participation from tyranny to transformation? Exploring new approaches to participation in development*. London: ZED Books.

Hogan, D. J., R. L. Carmo, H. P. F. Alves and I. A. Rodrigues. 1999. "Sustentabilidade no Vale do Ribeira (SP): conservação ambiental e melhoria das condições de vida da população." *Ambiente & Sociedade* 3-4:151-175.

Holifield, R., M. Porter and G. Walker. 2009. "Introduction. Spaces of environmental justice: frameworks for critical engagement." *Antipode* 41 (4):591-612.

Holifield, R. 2015. "Environmental justice and political ecology." In *The Routledge handbook of political ecology*, edited by T. Perreault, G. Bridge and J. McCarthy, 585-597. London: Routledge.

Holling, C. S. 1986. "The resilience of terrestrial ecosystems: local surprise and global change." In *Sustainable development of the biosphere*, edited by W. C. Clark and R. E. Munn, 292-332. Cambridge: Cambridge University Press.

Hooker, J. 2005. "Indigenous inclusion/black exclusion: race, ethnicity and multicultural citizenship in Latin America." *Journal of Latin American Studies* 37:1-26.

Huang, C. Q., S. Kim, A. Altstatt, J. R. G. Townshend, P. Davis, K. Song, C. J. Tucker, O. Rodas, A. Yanosky, R. Clay and J. Musinsky. 2007. "Rapid loss of Paraguay's Atlantic forest and the status of protected areas - a landsat assessment." *Remote Sensing of Environment* 106 (4):460-466. doi: 10.1016/j.rse.2006.09.016.

ISA. 2002. *Tijuco Alto: Saiba porque ela não interessa ao Vale do Ribeira.* São Paulo: Instituto Socioambiental.

Jones, K. 1998. "Scale as epistemology." *Political Geography* 17:25-28.

Kaarhus, R. 1999. "Intervjuer i samfunnsvitenskapene. Bidrag til en videre metodologisk diskurs." *Tidsskrift for Samfunnsforskning* 40 (1):33-62.

Klein, T. 2015. "Engaging the Brazilian state: the Belo Monte dam and the struggle for political voice." *The Journal of Peasant Studies* 42 (6): 1137-1156.

Kurtz, H. E. 2003. "Scale frames and counter-scale frames: constructing the problem of environmental injustice." *Political Geography* 22:887-916.

Leach, M. and R. Mearns. 1996. *The lie of the land: challenging received wisdom on the African environment.* London: James Currey.

Leach, M. 2008. *Re-framing resilience: a symposium report*. STEPS Working paper 13. Brighton: STEPS Centre.

Leite, I. B. 2008. "O projeto político quilombola: desafios, conquistas e impasses atuais." *Estudos Feministas* 16 (3):965-977.

Leite, I. B. 2015. "The Brazilian quilombo: 'race', community and land in space and time." *The Journal of Peasant Studies* 42 (6):1225-1240. doi: 10.1080/03066150.2015.1016919.

Li, T. M. 2004. "Environment, indigeneity and transnationalism." In *Liberation ecologies: environment, development, social movements*, edited by R. Peet and M. Watts, 339-370. London, New York: Routledge.

Linhares, L. F. D. R. 2004. "Kilombos of Brazil: identity and land entitlement." *Journal of Black Studies* 34 (6):817-837.

Lira, P. K., L. R. Tambosi, R. M. Ewers and J. P. Metzger. 2012. "Land-use and land-cover change in Atlantic Forest landscapes." *Forest Ecology and Management* 278:80-89. doi: 10.1016/j.foreco.2012.05.008.

Loloum, T. and C. Lins. 2012. "Land and power: an ethnography of maroon heritage policies in the Brazilian northeast." *International Journal of Heritage Studies* 18 (5):495-512. doi: 10.1080/13527258.2011.632024.

MAB. 2013. *A expansão hidrelétrica e o modelo de desenvolvimento*. Mabnacional, 11 March.

Machado, M. H. P. T. 2006. "From slave rebels to strikebreakers: the quilombo of Jabaquara and the problem of citizenship in late-nineteenth-century Brazil." *Hispanic American Historical Review* 86:247-274.

Maiorano, L., A. Falcucci and L. Boitani. 2008. "Size-dependent resistance of protected areas to land-use change." *Proceedings of the Royal Society Biological Sciences* 275 (1640):1297-304.

Marinho, M. A. and S. A. Furlan. 2007. "Conflitos e possíveis diálogos entre parques e populações: Intervales e Guapiruvu, SP." *Floresta e Ambiente* 14 (2):22-34.

Martinez-Alier, J. 2002. *Environmentalism of the poor: a study of ecological conflicts and valuation*. Northhampton, Mass.: Edward Elgar.

Martins, S. S., C. A. Medeiros and E. L. Nascimento. 2004. "Paving paradise: the road from 'racial democracy' to affirmative action in Brazil." *Journal of Black Studies* 34 (6):787-816.

Massey, D. 1994. *Space, place, and gender*. Minneapolis: University of Minneapolis Press.

Mattoso, K. M. D. Q. 1986. *To be a slave in Brazil: 1550-1888*. New Brunswick: Rutgers University Press.

Maxwell, J. A. 1996. *Qualitative research design: an interactive approach. Vol. 41, Applied social research methods series*. London/New Delhi: Thousand Oaks.

McCormick, S. 2006. "The Brazilian anti-dam movement: knowledge contestation as communicative action." *Organization & Environment* 19 (3):321-346.

McCully, P. 2001. *Silenced rivers: the ecology and politics of large dams*. London: Zed Books.

McDonald, D. A. 2002. *Environmental justice in South Africa.* Athens, OH: Ohio University Press.

Metzger, J. P., A. C. Martensen, M. Dixo, L. C. Bernacci, M. C. Ribeiro, A. M. G. Teixeira and R. Pardini. 2009. "Time-lag in biological responses to landscape changes in a highly dynamic Atlantic forest region." *Biological Conservation* 142 (6):1166-1177. doi: 10.1016/j.biocon.2009.01.033.

Miller, R. W. (1991). "Facts and method in the social sciences." In *The philosophy of science,* edited by R. Boyd, P. Gasper and J. D. Trout, 743-762. Cambridge: MIT Press.

Mittermeier, R. A. 2004. *Hotspots revisited*. Mexico City: CEMEX.

Mjøset, L. 2009. "The contextualist approach to social science methodology." In *The Sage handbook of case-based methods*, edited by D. Byrne and C. Ragin, 39-68. London: Sage.

MME/EPE. 2012. *Plano decenal de expansão de energia 2021*. Brasília: Empresa de Pesquisa Energética, Ministério de Minas e Energia.

Moares, R., W. G. Landis and S. Molander. 2002. "Regional risk assessment of a Brazilian rain forest reserve." *Human and Ecological Risk Assessment* 8 (7): 1779-1803.

Munari, L. C. 2009. "Memória social e ecologia histórica: a agricultura de coivara das populações Quilombolas do Vale do Ribeira e sua relação com a formação da Mata Atlântica local." Master diss., University of São Paulo.

Myers, N., R. A. Mittermeier, C. G. Mittermeier, G. A. B. Fonesca and J. Kent. 2000. "Biodiveristy hotspots for conservation priorities." *Nature* 403:853-858.

Nanda, M. 1998. "The epistemic charity of the social constructivist critics of science and why the third world should refuse the offer." In *A house built on sand. Exposing postmodernist myths about science*, edited by N. Koertge, 286-312. Oxford: Oxford University Press.

Neumann, R. P. 2004. "Nature-state-territory. Toward a critical theorization of conservation enclosures." In *Liberation ecologies: environment, development,*

social movements, 2nd edition, edited by R. Peet and M. Watts, 195-217. London: Routledge.

Nygren, A. 2004. "Contested lands and incompatible images: the political ecology of struggles over resources in Nicaragua's Indio-Maíz Reserve." *Society and Natural Resources* 17:189-205.

O'Dwyer, E. C. 2002. *Quilombos: identidade étnica e territorialidade.* Rio de Janeiro: Editora Fundação Getúlio Vargas.

Oliveira Jr., A. N., D. Stucchi, M. F. Chagas and S. S. Brasileiro. 2000. "Comunidades negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria Rosa e Pilões." In *Negros do Ribiera: Reconhecimento étnico e conquista do território*, edited by T. Andrade, C. A. C. Pereira and M. R. Oliveira Andrade, 39-192. São Paulo: ITESP.

Oliveira, E. R. 2004. *Populações humanas na Estação Ecológica Juréia-Itains*. São Paulo: NUPAUB-Cemar.

Oudenhoven, F. J. W., D. Mijatovic and P. B. Eyzaguirre. 2011. "Social-ecological indicators of resilience in agrarian and natural landscapes." *Management of Environmental Quality: An International Journal* 22 (2):154-173.

Pacheco de Oliveira, J. 1994. *Documento do grupo de trabalho sobre comunidades negras rurais*. Associação Brasileira de Antropologia.

Pader, E. 2014. "Seeing with an ethnographic sensibility." In *Interpretation and method: empirical research methods and the interpretive turn*, 2nd edition, edited by D. Yoanow and P. Swarz-Shea, 194-208. Armond/ New York: Me. E. Sharpe.

Pahnke, A., R. Tarlau and W. Wolford. 2015. "Understanding rural resistance: contemporary mobilization in the Brazilian countryside." *The Journal of Peasant Studies* 42 (6):1069-1085. doi: 10.1080/03066150.2015.1046447.

Paulson, S., L. L. Gezon and M. Watts. 2003. "Locating the political in political ecology." *Human Organization* 62 (3):205-217.

Peach, L. 1995. "An introduction to ethical theory." In *Research ethics: cases and materials*, edited by R. L. Penslar. Bloomington/Indianapolis: Indiana University Press.

Pedroso Jr., N. N., R. S. S. Murrieta, C. S. Taqueda, N. D. Navazinas, A. P. Ruivo, D. V. Bernardo and W. A. Neves. 2008. "A casa e a roça: socioeconomia, demografia e agricultura em populações Quilombolas do Vale do Ribeira, São Paulo, Brasil." *Ciências Humanas* 3 (2):227–252.

Pedroso Jr., N. N., C. Adams and R. S. S. Murrieta. 2009. "Slash and-burn agriculture: a system in transformation." In *Current trends in human ecology*, edited by P. Lopes and A. Begossi, 12-34. Newcastle upon Tyne: Cambridge Scholars Press.

Peet, R. and M. Watts. 1996. *Liberation ecologies: environment, development, social movements*. London: Routeldge.

Peet, R., and M. Watts. 2004. *Liberation ecologies: environment, development, social movements*. 2nd edition. London: Routledge.

Peluso, N. L. 1992. *Rich forests, poor people: resource control, and resistance in Java.* Berkeley, CA: University of California Press.

Penna-Firme, R. and E. Brondizio. 2007. "The risks of commodifying poverty: rural communities, quilombola identity, and nature conservation in Brazil." *Habitus* 5 (2):355-373.

Penna-Firme, R. 2013. "Political and event ecology: critiques and opportunities for collaboration." *Journal of Political Ecology* 20:199-216.

Peroni, N. and N. Hanazaki. 2002. "Current and lost diversity of cultivated varieties, especially cassava, under swidden cultivation systems in the Brazilian Atlantic forest." *Agriculture, Ecosystem and Environment* l92:171-183.

Perreault, T. 2003. "Making space." *Latin American Perspectives* 30 (128):96-121.

Peterson, G. 2000. "Political ecology and ecological resilience: an integration of human and ecological dynamics." *Ecological Economics* 35:323–336.

Petrone, P. 1966. *A baixada do Ribeira*. São Paulo: FFCLUSP.

Porro, R. 2005. "Palms, pastures, and swidden fields: the grounded political ecology of 'agro-extractive/shifting cultivator peasants'." *Human Ecology* 33 (1):17-56.

Porto, M. F. 2012. "Movements and the network of environmental justice in Brazil." *Environmental Justice* 5 (2):100-104. doi: 10.1089/env.2011.0012.

Porto, M. F., T. Pacheco and J. P. Leroy. 2013. *Injustiça ambiental e saúde no Brasil: o mapa de conflitos*. Rio de Janeiro: Fiocruz.

Posey, D. A. 1985. "Indigenous management of tropical forest ecosystems: the case of the Kayapó indians of the Brazilian Amazon." *Agroforestry Systems* 3 (2):139-158. doi: 10.1007/BF00122640.

Prado, H. M., R. S. S. Murrieta, C. Adams and E. S. Brondizio. 2013. "Complementary viewpoints: scientific and local knowledge of ungulates in the Brazilian Atlantic Forest." *Journal of Ethnobiology* 33 (2):180–202.

Pulido, L. 1996. "A critical review of the methodology of environmental racism research." *Antipode* 28 (2):142-159.

Pulido, L. 2000. "Rethinking environmental racism: white privilege and urban developent in Southern California." *Annals of the Association of American Geographers* 90:12-40.

Queiroz, R. S. 1983. "Caipiras negros no Vale do Ribeira: um estudo de antropologia econômica." Séria Antropologia, EDUSP.

Ragin, C. C. 1992. "Introduction: cases of 'what is a case?'" In *What is a case?Exploring the foundations of social inquiry*, edited by C. C. Ragin and H. S. Becker, 1-17. Cambridge: Cambridge University Press.

Rapoport. 2008. *Between the law and their land: Afro-Brazilian quilombo communities' struggles for land rights.* University of Texas of Austin: Rapoport Center for Human Rights and Justice.

Rawls, J. 1971. *A theory of justice*. Cambridge, Mass.: The Belknap Press of Harvard University Press.

Reis, N. R. S., A. R. C. Motta-Castro, A. M. C. Silva, S. A. Teles, C. F. T. Yoshida and R. M. B. Martins. 2008. "Prevalence of hepatitis C virus infection in quilombo remnant communities in Central Brazil." *Rev. Inst. Med. Trop. S. Paulo* 50 (6):359-360.

Rezende da Silva, S. 2008. "Negros na mata Atlântica, territórios quilombolas e a conservação da natureza." Doctoral diss., University of São Paulo.

Ribeiro, M. C., J. P. Metzger, A. C. Martensen, F. J. Ponzoni and M. M. Hirota. 2009. "The Brazilian Atlantic forest: how much is left, and how is the remaining forest distributed? Implications for conservation." *Biological Conservation* 142 (6):1141-1153. doi: http://dx.doi.org/10.1016/j.biocon.2009.02.021.

Robbins, P. 2007. *Lawn people: how grasses, weeds, and chemicals make us who we are*. Philadelphia: Temple University Press.

Robbins, P. 2012. *Political ecology: a critical introduction.* Chichester: Wiley-Blackwell.

Rylands, A. B. and K. Brandon. 2005. "Brazilian protected area." *Conservation Biology* 19 (3):612-618. doi: 10.1111/j.1523-1739.2005.00711.x.

Sanches, R. A. 2001. "Caiçara communities of the southeastern coast of São Paulo State (Brazil): traditional activities and conservation policy of the Atlantic rain forest." *Human Ecology Review* 8 (2):52–64.

Santilli, J. 2010. "Human-inhabited protected areas (HIPAs) and the law: integration of local communities and protected areas in Brazilian law." *Journal of Sustainable Forestry* 29:390-402.

Santos, K. M. P. and N. Tatto. 2008. *Agenda socioambiental de comunidades quilombolas do Vale do Ribeira*. São Paulo: Instituto Socioambiental.

Santos, M. W. 2010. "Saberes da terra: o lúdico em Bombas, uma comunidade quilombola (estudo de caso etnográfico)." Doctoral diss., University of São Paulo.

Santos, P. S. 2002. *Relatório técnico-científico sobre os remanescentes da comunidade de quilombo de Praia Grande/Iporanga-SP*. São Paulo: ITESP.

Schlosberg, D. 2004. "Reconceiving environmental justice: global movements and political theories." *Environmental Politics* 13 (3):517-540.

Schlosberg, D. 2007. *Defining environmental justice: theories, movements, and nature*. Oxford: Oxford University Press.

Schmink, M. and C. H. Wood. 1992. *Contested frontiers in Amazonia*. New York: Columbia University Press.

Schmitt, A., M. C. M. Turatti and M. C. P. Carvalho. 2002. "A atualização do conceito de quilombo: identidade e território nas definições teóricas." *Ambiente & Sociedade* 5 (10):1-8.

Schroeder, R., Martin, K. S., Wilson, B. and D. Sen. 2008. "Third World environmental justice." *Society & Natural Resources 21* (7):547-555. doi: 10.1080/08941920802100721

Schwartz, S. B. 1992. *Slaves, peasants, and rebels: reconsidering Brazilian slavery*. Urbana, Il.: University of Illinois Press.

Scott, J. C. 1985. *Weapons of the weak: everyday forms of peasant resistance*. New Haven: Yale University Press.

Scott, R. J. 1988. *The abolition of slavery and the aftermath of emancipation in Brazil*. Durham: Duke University Press.

Seixas, C. S. and F. Berkes. 2006. "Dynamics of social-ecological changes in a lagoon fishery in southern Brazil." In *Navigating social-ecological systems: building resilience for complexity and change*, edited by F. Berkes, J. Colding and C. Folke, 271-298. New York: Cambridge University Press.

Sevá Filho, A. O., A. T. Rick and C. P. Minello. 2007. *Parecer independente sobre o licenciamento ambiental do projeto da Hidrelétrica Tijuco Alto, no rio Ribeira do Iguape (Paraná - São Paulo) e sobre seus riscos para o povo e sua região.* São Paulo: Instituto Socioambiental.

Shrader-Frechette, K. 1994. *Ethics of Scientific Research*. Lanhman: Rowman and Littlefield Publisher Inc.

Silva, J. M. C. and C. H. M. Casteleti. 2003. "Status of the biodiversity of the Atlantic forest of Brazil." In *The Atlantic forest of South America: biodiversity status, threats, and outlook*, edited by C. Galindo-Leal and I. G. Câmara, 43-59. Washington: Island Press.

Silveira, P. C. B. 2001. "Povo da terra, terra do parque: presença humana e conservação de florestas no Parque Estadual Alto Ribeira, SP." Master diss., University of Campinas.

Silveira, P. C. B. 2003. *Relatório técnico científico sobre os remanescentes da comunidade de quilombo de Bombas, Iporanga-São Paulo*. São Paulo: ITESP (unpublished).

Silveira, P. C. B. 2008. "Mal para nós, bem para o mundo? Um olhar antropológico sobre a conservação estadual turístico do alto Ribeira (PETAR)." *Turismo e Paisagens Cársticas* 1 (1):19-28.

Smith, N. 1984. *Uneven development: nature, capital and the production of space*. Oxford: Basil Blackwell.

Sneddon, C. and C. Fox. 2008. "Struggles over dams as struggles for justice: the World Commission on Dams (WCD) and anti-dam campaigns in Thailand and Mozambique." *Society & Natural Resources* 21 (7):625-640. doi: 10.1080/08941920701744231.

Snow, D. A., E. B. Rochford, S. K. Worden and R. D. Benford. 1986. "Frame alignment processes, micromobilization, and movement participation." *American Sociological Review* 51:464-481.

Souza, A. 2008. "The gathering momentum for environmental justice in Brazil." *Environmental Justice* 1 (4):183-188.

Sternberg, R. 2008. "Hydropower: dimensions of social and environmental coexistence." *Renewable & Sustainable Energy Reviews* 12 (6):1588-1621. doi: 10.1016/j.rser.2007.01.027.

Stott, P. and S. Sullivan. 2000. *Political ecology: Science, myth and power*. London: Arnold.

Sundberg, J. 2008. "Placing race in environmental justice research in Latin America." *Society and Natural Resources* 21 (7):569-582. doi: 10.1080/08941920802111538.

Tatto, N. 2014. *Corredor Socioambiental do Vale do Ribeira (SP/PR) está ameaçado.* Blog do Vale do Ribeira, 14 March.

Taylor, D. E. 2000. "The rise of the environmental justice paradigm. Injustice framing and the social construction of environmental discourses." *American Behavioural Scientist* 43 (4):508-580.

Tierney, P. 2000. *Darkness in El Dorado, how scientists and journalists devastated the Amazon*. New York: W.W. Norton.

Towers, G. 2000. "Applying the political geography of scale: grassroots strategies and environmental justice." *Professional Geographer* 52 (1):23-36.

Turner, B. L. 2008. "A skeptic's comments on resilience and alternative approaches to coupled human-environment systems." In *Re-framing resilience: a symposium report*, edited by M. E. Leach, 1–18. Brighton: STEPS Centre, Institute for Development Studies.

United Church of Christ, Commission for Racial Justice. 1987. *Toxic wastes and race in the United States: a national report on the racial and socio-economic characteristics of communities with hazardous waste sites.* New York: Public Data Access.

United States General Accounting Office. 1983. *Siting of hazardous waste landfills and their correlation with racial and economic status of surrounding communities.* Washington, DC.: US General Accounting Office.

Urkidi, L. and M. Walter. 2011. "Dimensions of environmental justice in anti-gold mining movements in Latin America." *Geoforum* 42 (6):683-695. doi: http://dx.doi.org/10.1016/j.geoforum.2011.06.003.

van Vliet, N., O. Mertz, A. Heinimann, T. Langanke, U. Pascual, B. Schmook, C. Adams, D. Schmidt-Vogt, P. Messerli, S. Leisz, J.-C. Castella, L. Jørgensen, T. Birch-Thomsen, C. Hett, T. B. Bruun, A. Ickowitz, K. Chi Vu, K. Yasuyuki, J. Fox, C. Padoch, W. D. Dressler and A. D. Ziegler. 2012. "Trends, drivers and impacts of changes in swidden cultivation in tropical forest-agriculture frontiers: a global assessment." *Global Environmental Change* 22:418–429.

Varjabedian, R. 2010. "Lei da Mata Atlântica: Retrocesso ambiental." *Estudos Avançados* 24:147-160.
Vayda, A. and B. Walters. 1999. "Against political ecology." *Human Ecology* 27:167-179.
Vedeld, P. O. 1994. "The environment and interdisciplinarity. Ecological and neoclassical economical approaches to the use of natural resources." *Ecological Economics* 10:1-13.
Vedeld, P. O. 2004. *Some piece of cake! Crafting interdisciplinarity in teaching MNRSA*. Ås: *Noragric Working Paper*.
Vianna, L. P. and C. Adams. 1995. *Conflitos entre populações humanas e àreas naturais protegidas na Mata Atlântica*. São Paulo: NUPAUB.
Wade, P. 1995. *Blackness and race mixture: the dynamics of racial identity in Colombia*. Baltimore: Johns Hopkins University Press.
Walker, G. and H. Bulkeley. 2006. "Geographies of environmental justice." *Geoforum* 37 (5):655-659.
Walker, P. A. 2005. "Political ecology: where is the ecology?" *Progress in Human Geography* 29 (1):73-82.
Walker, P. A. 2006. "Political ecology: where is the policy?" *Progress in Human Geography* 30 (3): 382-395.
WCD. 2000. *Dams and development. A new framework for decision making*. London: Earthscan.
West, P., J. Igoe and D. Brockington. 2006. "Parks and peoples: the social impact of protected areas." *Annual Review of Anthropology* 35:251-277.
Western, D. 2001. "Human-modified ecosystems and future evolution". *Proceedings of the National Academy of Sciences* 98 (10):5458-65.
Whiteford, L. M. and R. T. Trotter II. 2008. *Ethics for anthropological research and practice*. Long Grove, Illinois: Waveland Press, Inc.
Widlock, T., A. Aufgebauer, M. Bradtmöller, R. Dikau, T. Hoffmann, I. Kretschmer, K. Panagiotopoulos, A. Pastoors, R. Peters, F. Schäbitz, M. Schlummer, M. Solich, B. Wagner, G. Weniger and A. Zimmermann. 2012. "Towards a theoretical framework for analyzing integrated socio-environmental systems." *Quaternary International* 274:259–272.
Williams, R. W. 1999. "Environmental injustice in America and its politics of scale." *Political Geography* 18 (1):49-73. doi: http://dx.doi.org/10.1016/S0962-6298(98)00076-6.
Wolford, W. 2008. "Environmental justice and the construction of scale in Brazilian agriculture." *Society and Natural Resources 21* (7):641-655. doi: 10.1080/08941920802096432
Wolford, W. 2010. *This land is ours now: social mobilisation and the meaning of land in Brazil.* Durham/London: Duke University Press.
Wolford, W. and S. Keene. 2015. "Social movements." In *The Routledge handbook of political ecology*, edited by T. Perreault, G. Bridge and J. McCarthy, 573-584. London, New York: Routledge.
Young, I. M. 1990. *Justice and the politics of difference*. Princeton, N.J.: Princeton University Press.
Zerner, C. 2000. *People, plants, and justice: the politics of nature conservation*. New York: Columbia University Press.
Zimmerer, K. S. 2000. "The reworking of conservation geographies: nonequilibirum landscapes and nature society hybrids." *Annals of the Association of American Geographers* 90:356-69.

Zimmerer, K. and T. Bassett. 2003. *Political ecology: an integrative approach to geography and environment-development studies.* New York: Guilford Press.

Part Two: Compilation of Papers

EXCLUSION'S DOUBLE-EDGE: CHALLENGES FOR THE REALISATION OF AFRO-BRAZILIAN QUILOMBOS' RIGHTS TO LAND

Kjersti Thorkildsen* and Randi Kaarhus**

* Department of International Environment and Development Studies/Noragric, the Norwegian University of Life Sciences (NMBU), P.O. Box 5003, 1432 Aas, Norway, Phone: +47 64965200 (Email: kjerstithork@gmail.com).
** Centre for Practical knowledge, Nord University, P.O. Box 1490, 8049 Bodø, Norway, Phone +47 75517755 (Email: Randi.kaarhus@nord.no).

Abstract
The recognition of Afro-Brazilian *quilombola* communities as legal land holders was enacted in the 1988 Brazilian Constitution as reparation for historical injustices of slavery, domination and violation of rights. Few communities have, however, as yet obtained land titles. Drawing on fieldwork in *quilombos* in the Ribeira Valley in the state of São Paulo, this article explores the historical origin of quilombos, the evolution of the legal framework addressing quilombos' rights to land and multi-scale constraints in the complex processes of implementing these rights. In its analysis of historical and contemporary processes of exclusion of quilombos from land, the article draws upon the concepts of 'regulation', 'force' and 'legitimation' from political-ecology literature, enabling insights into why conflicts over land emerge and how these are played out. This approach also allows attention being paid to 'exclusion's double edge'; that access for some ultimately result in exclusion of others and the emergence of new dilemmas. Research findings show that both external political and economic interests in quilombola lands, as well as internal disagreements about collective identity recognition and property rights constrain the realisation of quilombos' rights to land.

Keywords: quilombola communities; Afro-Brazilians; collective ownership; land conflicts; exclusion; Brazil

1. Introduction

With the crumbing of military dictatorships in Latin American countries in the 1970s and 1980s, a broad range of civil society actors and social movements organised to promote democratisation. This included securing formal citizens' rights, but also promoting participatory forms of democracy (Escobar and Alvarez 1992; French 2009a). While lobbying for equal rights, these advocates also aimed at a redefinition of citizenship. Their 'project to extend citizenship' included as a central element the right to difference, involving cultural dimensions, and the recognition of specific rights associated with ethnic identity (Dagnino 2005). In hindsight, the 1980s stand out as a critical moment, not only expressed in the emergence of new, democratic legal frameworks, but also in the development of a politics of cultural recognition, as well as land rights for both indigenous and Afro-American populations in Latin America (Stocks 2005). When Brazil in 1988 passed a new constitution, the

Constituent Assembly was in the forefront in responding to the developing demands throughout the Americas for extended citizenship and ethnic-based rights.[1] On the one hand, the Constitution's Article 231 states that 'Brazil's indigenous peoples are the original and natural owners of Brazilian land and that their land rights have precedence over other land rights' (Stocks 2005, 91). At the same time, the Black Movement's influence in the Constituent Assembly contributed to the enactment of ethnic-based rights for Afro-Brazilian *quilombos,* descending from slaves (French 2009b; Loloum and Lins 2012). As we will show, the constitutional formulation was itself somewhat ambiguous in providing for ownership to land for *'remanescentes das comunidades dos quilombos'* – that is, 'remaining members', 'descendants' or 'survivors' of quilombola communities (French 2006).

The legal basis for the political recognition of a quilombola identity was done at a symbolic moment; exactly one hundred years after the Brazilian parliament had – finally – passed the 'Golden Law' (*Lei Aúrea)* which officially abolished slavery (Scott 1988; Schwartz 1992). In the 1988 Constitution, Articles 215 and 216 address cultural rights and cultural heritage, stating that the Brazilian state shall both ensure the full exercise of cultural rights and protect the expressions of popular, indigenous and Afro-Brazilian cultures (Leite 2015, 1229). The Constituent Assembly also passed Article 68 as part of a Temporary Constitutional Provisions Act (*Ato das Disposições Constitucionais Transitórias*), stating that: 'Final ownership shall be recognised for the remaining members of the ancient runaway slave communities who are occupying their lands and the state shall grant them the respective title deeds' (Brazil 2010). The inclusion of these rights in the Constitution was meant as a measure to repay a historical debt to Afro-Brazilian communities that still suffered the effects of centuries of slavery, domination and violation of basic human rights (Machado 2006; Martins, Medeiros, and Nascimento 2004).

Almost three decades later, we are in a position to discern a range of challenges and constraints at different scales, which impede the fulfilment of quilombos' rights as formulated in the 1988 Constitution. In this article, we aim to explore some of the constraints faced by present-day Brazilian quilombos when seeking to realise their rights to land. We do this by examining the dilemmas and debates the quilombo provision in the 'transitory' Article 68 invoke, especially at the local scale. Drawing upon fieldwork in different quilombola communities in the Ribeira Valley in the state of São Paulo, we focus on how quilombola identity and land titling processes are understood locally, while the context and procedures for the legal recognition of land rights are defined at the scales of the state and the federal government. In this way we hope to contribute to a growing body of field-based research on contemporary quilombola communities' struggles for recognition as right-holders on Brazilian land (e.g. Farfán-Santos 2015; Leite 2015; Loloum and Lins 2012; Penna-Firme and Brondizio 2007; French 2009b).

We find that a broad array of powers prevent quilombos from realising the constitutional rights to land, which – in turn – leave community members uncertain about their continued access to the land they occupy. Without official recognition from the government, quilombolas are in practice excluded from effective access to basic citizenship rights, as well as to the social services and public programs set up to improve the situation of residents in – officially recognized – quilombos.[2] This situation makes the continuation of their traditional

[1] The 1988 Constitution is known as the Citizen's Constitution and was promulgated when Brazil turned to democratic rule after two decades of military dictatorship (1964-1985).

[2] Such as the National Policy to Promote Racial Equality and the Brazilian Quilombola Program – a set of inter-ministerial actions for quilombolas' education, health and citizenship.

livelihood activities increasingly difficult (Loloum and Lins 2012). Without formal titles to their lands, quilombola communities often suffer from threats from third parties, including nearby landowners, and may also be subject to forced eviction, as well as the implementation of development and conservation projects inside their lands (Porto, Pacheco, and Leroy 2013). Furthermore, unsettled situations involving competing claims to land tend – like elsewhere in similar situations – to spur internal conflicts over land both within families and at community level (Farfán-Santos 2015).

Key concepts in the analytical framework of this article are presented in the section below, followed by a short description of the methods used for data collection. In the next section, we provide a brief historical analysis of the various origins of quilombos in Brazil and the evolution of the legal framework addressing quilombos' rights. Here, different impediments to titling, including the definition of quilombos and the economic and political interests working against the quilombo provision will be highlighted. This provides a context for the account given in the following section on the history of the formation of quilombos in the Ribeira Valley and the locally situated processes of constructing quilombola identities from the 1990s onwards. We argue that a social justice perspective is necessary to deal with the present situation of legal ambiguities and unfulfilled expectations concerning the implementation of the quilombo provision in the Brazilian Constitution. The historically marginalised quilombos' rights to land must be prioritised as a way forward – towards a situation characterised by a more equal distribution of land ownership in Brazil – but also for historical injustices to be restored in the thousands of quilombos scattered throughout this vast country.

2. Conceptual Framework and Methodology

2.1 Land Rights, Access and Exclusion

Land has various meanings – as territory imbued with history and identity, as cultivable soils providing livelihoods, as homeland, home, and place, but also as commodity, speculative asset and reservoir for future generations (Pahnke, Tarlau, and Wolford 2015, 1072). Brazil has a contentious and violent political history of land ownership from colonialism and the use of slaves in exploiting landed resources, through the abolition of slavery, independence, modernisation, and two dictatorship regimes in the 20th century; and it continues until present. Today, Brazil has one of the most unequal structures of land distribution in the world, where 1% of the population owns 45 % of all land (USAID 2011). Such unequal access to land is constituted and naturalised through interactions between what Hall, Hirsch, and Li (2011) – inspired by political ecology research – calls the 'four powers of exclusion': regulation, force, market and legitimation. Hall et al. define exclusion in opposition to *access*, and as 'the ways in which people are *prevented* from benefiting from things (more specifically land)' (2011, 7 [italics in original]). In this article we will refer to three of these powers that shape exclusion from land, namely regulation, force and legitimation, when we analyse some of the obstacles quilombos' encounter when claiming land rights. 'Regulation' refers to formal and informal rules that govern land access and exclusion. Regulation determines boundaries, allowable uses and permitted types of usufruct and ownership rights (Hall, Hirsch, and Li 2011, 15). 'Force' involves exclusion by violence or the threat of violence and is undertaken by both state and non-state actors (Hall, Hirsch, and Li 2011, 16-17). Force applies when the police, paramilitary or security guards defend property of powerful landlords, but also when quilombolas engage in community-conflicts over access to land. 'Legitimation' can be used to justify both status quo and change, and establishes the moral basis for exclusive claims, for use of force and for entrenching regulation (Hall, Hirsch, and Li 2011, 18-19). Legitimation

can justify different forms of exclusion of access to land for local residents, for example through protected area establishment for biodiversity conservation or dam-building for electricity production, both in the name of the 'public good'. Other justifications of land exclusion that are common in Brazil include the needs for agribusiness expansion, oil exploitation and mining, and the criminalisation of social movements that oppose such 'developments'. But also what is termed collective ownership, based on claims of ethnicity/indigeneity, can serve to justify exclusion as explained below.

With increasing pressure on land, use and access will cumulatively involve some form of exclusion. Our approach in this article involves a focus on exclusion, aiming at a better insight into why conflicts over land emerge and how these play out. It also allows attention to be paid to what (Hall, Hirsch, and Li 2011, 8) call 'exclusion's double edge', referring to the dilemma that access for some leads to exclusion of others. Thus, '…the various kinds of exclusivity that different actors want generally bring with them not just the desired positive effects but also a series of other effects that are much less welcome' (Hall, Hirch, and Li 2011, 8). For instance, setting aside forests for nature conservation either involves exclusion of forest users or some kind of restrictions on their resource use, thus excluding local people from livelihood sources. Or, when a large dam is constructed on a river, the filling of a dam reservoir leads to dispossession of riparian populations and the changed water flow, water quality and species composition affect downstream residents and their livelihoods. When quilombolas assert precedence to land on the grounds of ethnic belonging and as compensation for historical marginalisation linked to slavery and oppression, this can also be at the expense of other land users and other land uses (Andrade 2015). This notion of exclusion's double edge is in line with Lazarus (1993), noting that all laws have distributional consequences, including the laws designed to further a particular conception of the public interest.

The dilemma involved in exclusion's double edge provides an intake to understand how quilombola claims have triggered conflicts between local communities and established landowners, but also to how conflicts between community members regularly emerge (Loloum and Lins 2012). The land rights connected to quilombola status, only involves rights to a collective and inalienable form of land ownership, meaning that this land cannot be sold, transferred or rented out (Santilli 2010). Justification for this type of property arrangement tends to be that indigenous and traditional peoples need special protection to prevent them from selling their land and thereby place their livelihoods and culture at risk, but is also a recognition of their customary laws (Hall, Hirsch, and Li 2011, 9). Within the Brazilian legal framework, when a community opt for quilombola recognition and a collective land title, any individual land title held within this territory will lose its status as private property in the sense that this land can no longer be sold or used as collateral for loans. When families holding individual titles oppose a collective quilombo title, the rationale will be that their private individual land title is one of the few, or maybe the only, assets they have. Although they may not want to sell their land, they may want to leave this option open. Other community members may position themselves against a collective quilombo since they depend on work offered by third parties located within the land claimed by the quilombo, and do not want to lose the livelihood opportunities resulting from their presence. Thus, not everyone will participate or benefit equally from the claims made in the name of community interest. Community must be understood as heterogeneous social units, and community members represent a diverse configuration of interests, standpoints, strategies and identity-related representations (Almeida 2002). This heterogeneity has, however, also been used to de-legitimate quilombos' land claims.

So while quilombola titling produces access and security for some, it may also produce exclusion and increased insecurity for others. This tension lies at the heart of struggles on the ground where people asserting competing claims confront each other, and on the national scale where arrangements for land access are debated. In this article, we will use the concepts of regulation, force and legitimation in an account of historical and contemporary processes of exclusion of quilombos at the national, state and local scale, in order to get insight into the constraints quilombos encounter at present when trying to obtain legal titles to quilombola land.

2.2 Methods of Primary Data Collection

The primary data presented in this article was obtained through fieldwork in São Paulo, Brazil carried out by the first author in the period 2010–2013. Fieldwork included participant observation in the quilombo Bombas in the municipality of Iporanga between autumn 2010 and spring 2011. This community is located in a remote and sparsely populated area covered by Atlantic Forest and its' entire territory is overlapped by the Upper Ribeira State Touristic Park (PETAR), established as the first protected area in São Paulo in 1958. Data collection involved getting to know community life through stay-overs in different homes, visits to agricultural fields, informal conversations and participation in community meetings, and in meetings with state authorities and mediatory NGOs dealing with negotiations over land rights as well as internal conflicts. Participant observation with registration in a field diary was complemented with altogether 60 open-ended interviews conducted with quilombola inhabitants and leaders from ten different communities in the Ribeira Valley, government officials, politicians, representatives of NGOs, activists, lawyers and academics. Further insight into the struggle for the realisation of quilombos' land rights was obtained through attendance in different public hearings in Iporanga and São Paulo, and through participation in a manifestation in São Paulo in 2014 against the Proposed Constitutional Amendment 215/2000, which among other things, intend to restrict the provisions in the Constitution's 'transitory' Article 68.

3. History of the Formation of Quilombos and the Legal Framework

Brazil was one of the first countries in the 'New World' to establish a colonial economy based on slave labour from Africa, but also the last nation in the Americas to formally abolish the institution of slavery (Rapoport 2008, Mattoso 1986). Spanish colonizers had already in the first decades of the 16th century brought first sugar cane, then enslaved Africans to the Caribbean for work in what Mintz (1985, 32) calls the 'pristine sugar industry'. Very soon the Brazilian Northeast took over as the major producer for a growing European sugar market, using the same production system based on slave labour in cane plantations (Mintz 1985). However, the African slaves were not only introduced to work in the expanding sugar plantations in the Northeast of Brazil, by the mid-16th century they were also brought to work in gold and diamond mines in the Southeast (Conrad 1994). Between 3 and 5 million slaves were taken from Africa to the country, making Brazil the destination of the highest number of slaves in all the colonial holdings during the Atlantic slave trade era (French 2009b; Schwartz 1992).

From the earliest time in which Africans were brought forcibly to Brazil, they resisted slavery through various means. Everyday recalcitrance, intentional indolence and sabotage were usual forms of defiance, while self-destruction through suicide, infanticide or overt attempts at

vengeance such as hunger-strikes and armed revolt were less frequent (Schwartz 1992, 103). But the most common form of slave resistance was by far the flight into fugitive communities, called *mocambos* or *quilombos.*[3] While *mocambo* was initially the most common word for a fugitive settlement in colonial Brazil, the term *quilombo* gained currency in the late 17th century (Schwartz 1992).[4] The word *quilombo* was first used in connection with the largest and most famous of the fugitive slave settlements, called Palmares. Palmares stretched over the border of two Brazilian states, Pernambuco and Alagoas (Anderson 1996). At its apex, one estimate suggests a population of around 20,000 (Carneiro 1958), while about the half has also been suggested (Schwartz 1992). Though this settlement was subject to a series of incursions and reprisals by both Dutch and Portuguese colonial forces, the quilombo of Palmares resisted attacks during most of the 17th century. The final battle over Palmares took place in 1694. Available documentation indicates that 200 Palmarinos were killed, 500 captured, and another 200 committed suicide; while Palmares' iconic leader Zumbi was captured and executed on 20 November 1695 (Schwartz 1992).

By the 18th century, the term quilombo was in general use in Brazil, and was popularised by the colonial administration to refer to units of mutual help created by rebels against the slave system. The Portuguese colonial law (Ultramarine legislation) from 1740 defined a quilombo as 'any habitation of five or more black fugitives residing on land that was uninhabited and uncultivated' (Leite 2008, 970). Focus was thus put on elements of escape; a minimum number of runaway slaves which was believed to have the potential for revolt; geographic isolation associated with a close connection to the natural world as opposed to civilization; and self-sufficiency and disconnection from the economic market (Almeida 2002). With this definition, quilombolas were labelled vandals, lazy, or natural savages. As 'criminals of the state', quilombos were seen to illegally occupy land, legitimating prosecution and expulsion (Farfán-Santos 2015). During Brazil's imperial period,[5] the elite perception continued to view quilombos as a serious threat to a stable social and political order, and that their presence rendered inaccessible a territory that was otherwise extremely fertile and suitable for various types of agriculture (Conrad 1994).

Since the colonisation of Brazil, Portugal had divided lands into enormous plots or territories called *sesmarias*, conceded by the Crown to a small number of colonial settlers, based on their commitment to improve 'vacant' land within five years (Loloum and Lins 2012). This was a strategy to occupy Brazil's vast land area and protect it from invasion from other colonial powers. The *sesmaria* system concentrated land ownership in the hands of a small number of landed elites, but ended with Brazilian independence in 1822. 'Vacant' or uncultivated lands were then confiscated by the state (as *terras devolutas*), and occupied lands were attributed to their effective occupants, who also received land titles. Brazilian elites seeking to protect their landholdings, and also strengthen their ability to be competitive exporters on an expanding international market, had a first Land Law (*Lei de Terras)* enacted in 1850. This law effectively excluded non-white populations from landownership (Leite 2015, 1231); it opened up for transfer of public lands to private ownership, favouring people with Brazilian citizenship or European immigrants. It further created various legal means for expropriating

[3] In the English-speaking West Indies and Guyana the term *maroon* has been used with reference to individual fugitive slaves, as well as their descendants.

[4] Swartz (1992) traces the etymology of both *mocambo* and *quilombo* to the Angolan KiMbundu language, where *mukambo* may refer to a hideout, while *kilombo* could refer to a 'warrior settlement' or circumcision camp related to a male initiation society, preparing the young for adulthood.

[5] The period from 1822, when Brazil became independent from Portugal, to 1889, when Brazil became a republic.

land, including expulsions, enclosures, registration of 'vacant' lands and seizure of lands for failure to pay taxes (Leite 2015). The Land Law seriously affected quilombolas' opportunities to acquire legal titles, since it made purchase the only means of acquiring public lands by abolishing the right to acquire legal title through occupation (Rapoport 2008). It only gave Africans and their descendants' limited rights, in this way denying them full Brazilian citizenship (Leite 2015, 1231).

The closing of the slave trade in 1850 put an end to African slaves being brought to Brazil, but slavery continued for yet another 33 years (Holanda 2012). The Brazilian-born slaves began to formulate a notion of themselves as Brazilian citizens with legal rights, and started to actively assert their aspirations for freedom and autonomy (Weinstein 2001). They also used discourses of citizenship to claim and legitimise access to land. Nevertheless, when slavery was abolished in 1888 and the first republican Constitution was promulgated in 1891, the issue of land for former slaves and their descendants was not addressed. Though quilombola settlements continued to exist, they were simply omitted from the legislation, as it was believed that they would disappear after abolition (Almeida 2002). When the term quilombo re-appeared in the 1988 Constitution, one hundred years later, it was included in the 'transitory' section. It was actually assumed that only a few communities continued to exist in contemporary Brazil as 'survivals' or 'remainders' of the original quilombos, and that these could be identified and granted land within a few years' time (French 2009b; Arruti 2006).

The provisions in the 'transitory' Article 68 were initially interpreted as legally restricting the rights to land to descendants of groups that had escaped or rebelled violently against enslavement – before 1888 (Linhares 2004). The quilombo of Palmares continued to serve as the classic image of a quilombo; as a large, rural community that had fiercely opposed the slave system and reproduced forms of African culture within Brazil (Schmitt, Turatti, and Carvalho 2002). Quilombos' various locations, the diverse relationships that had existed between slaves and the wider society, and the different ways in which land had been appropriated were thus ignored. In contrast to Palmares, most quilombos were small and located not only in the rural areas, but also on the edges of former plantations and in areas surrounding major cities (Rapoport 2008). Furthermore, most quilombos have not aggressively resisted the slave system, and they have not been exclusively composed of fugitive slaves, but also of former slaves who had bought their freedom, and freed slaves who had received land by donation, through heritage or in return for military services. All these categories of people occupied abandoned or unoccupied government lands when the slave system was operative, as well as after its abolition when the 1850 Land Law had entered into vigour (Schmitt, Turatti, and Carvalho 2002; Gusmão 1995; Almeida 2002). [6]

Article 68 used the category *remanescente de quilombo* with reference to the communities that had existed historically, and on that basis granted the 'remaining' communities rights to the land they had occupied over time. In Articles 215 and 216 of the Constitution, quilombos were considered part of the country's cultural and historical patrimony and given the same status as the sites of artistic, historic, archaeological and ecological value (Gusmão 1996; Almeida 2002). Quilombos were in this way referred to as relics of the past, not as living and active contemporary communities. In 1994, the Palmares Cultural Foundation (FCP) – a federal agency under the Ministry of Culture established to implement the quilombo provision

[6] The situation in Brazil was still different from the British West Indies; where after the abolition of slavery, according to Mintz (1985, 70), 'access to land and other local resources was shut off' for the freed labourers. In this way they 'were prevented from developing alternative sources of livelihood' – such as the quilombos in Brazil.

– put forward a definition of *quilombo* as referring to 'any Black rural community composed of descendants of slaves, who survived through subsistence agriculture, and with cultural manifestations linked to the past' (Leite 2015, 1227). This definition focused on race (blackness) and labour (subsistence agriculture), which implied requirements of 'authenticity', and a search for a heroic past of African cultural resistance and survival. Farfán-Santos (2015, 110) holds that 'authenticity' in this way created a demand for these communities 'to tell a specific history of their past as it has been written and incorporated into the Brazilian national imaginary'. Oral tradition and memory in these rural communities would, however, often have suppressed such references to a slave background or to signs of African identity (Penna-Firme and Brondizio 2007). This requirement of a close connection to African culture and practices for quilombos' to be seen as legitimate claimants to land was, however, very soon opposed by the Brazilian Association of Anthropologists. Instead, it offered an alternative definition of quilombos based on the Norwegian anthropologist Barth's (1969) theory of ethnic groups and boundaries. According to Barth, the critical focus should be 'the ethnic *boundary* that defines the group, not the cultural stuff that is encloses' (Barth 1969:15). According to Leite (2015, 1234), Barth's relational approach to ethnic groups created 'a powerful concept to describe the cultural dynamics of self-recognition'. By defining modern quilombo descendants as 'ethnic groups organised around their own rules of membership and belonging', the Brazilian Association of Anthropologists thus sought to make 'transitory' Article 68 more applicable to contemporary realities (Farfán-Santos 2015, 212).

Shifting definitions and disagreements over how to define 'legitimate' quilombos were central in delaying the implementation of the quilombo provision. Also the dispute over which federal government agency should be responsible for regularising quilombos served to slow down the implementation (Loloum and Lins 2012). Was the quilombo provision a cultural question and thus the responsibility of the Palmares Cultural Foundation (FCP) under the Ministry of Culture, or a land question and thus the responsibility of the National Institute of Colonisation and Agrarian Reform (INCRA) under the Ministry of Agrarian Development? After significant pressure from the quilombola movement[7] to implement the quilombo provision, in 1995, the land agency INCRA was given the responsibility to issue collective land titles for quilombos situated on federal public lands. In connection with the tercentenary of the death of the last Palmares leader Zumbi, 1995 was declared a year of national celebration of quilombos. On Zumbi Memorial Day on November 20[8], also known as the Black Awareness Day, President Cardoso announced the first recognition of a quilombo; the quilombo Boa Vista in the state of Pará (Andrade 2015).

In 1999, the federal government transferred the competence for administering the titling procedure to the Palmares Foundation, asserting that quilombo was mainly a cultural issue. The Foundation, however, lacked the resources to effectively implement the quilombo provision. As it lacked budget funds to compensate third parties, it did not deal with competing or overlapping land claims, through e.g. expropriating land, when it issued quilombola titles. This resulted in intensified social disputes between quilombos and other established landowners with overlapping land titles (Linhares 2004). The first presidential

[7] The quilombola movement grew out as a separate strand of the black movement after the enactment of 'transitory' Article 68. From the early 1990s, the quilombola movement gained national visibility and passed to defend its own agenda based on ethnic claims for land rights. However, it still continues to struggles for affirmative actions and the combat of racism together with the black movement (Cardoso and Gomes 2011).

[8] The day has been celebrated since the 1960s, but was only officially established by the bill of law 10.639 in 2003 and approved by the law 12.519 in 2011. Since then, it has turned an official holiday in 780 Brazilian municipalities, including 104 in São Paulo and all in Alagoas.

decree specifying regulations for the titling of quilombola land was issued in 2001 by President Cardoso (Decree 3.912). This Presidential Decree actually restricted the possibilities for recognition to land that: a) had been occupied by quilombos in 1888 – the year slavery was abolished – and that: b) was still occupied by descendants of those quilombos on October 5, 1988, the date of the new Constitution. The Decree further imposed evidentiary standards to prove historical occupation that were often impossible for communities to meet due to the – obvious – lack of historical documentation, as well as lack of present-day resources (Rapoport 2008). Not surprisingly, the quilombola movement opposed the measure as narrowing quilombos' rights. Instead they advocated a definition of quilombos in line with the approach promoted by the Brazilian Anthropological Association.

As a response to this advocacy, when 'Lula' da Silva took over as President in 2003, he issued a new decree, revoking the former decree of 2001. The new Presidential Decree, no. 4.887 of 2003, defined quilombos as a 'self-identified, ethno-racial group with their own historical trajectory, a specific relationship to the land, and the presumption of a black ancestry connected to forms of resistance to historical oppression' (Farfán-Santos 2015). The Decree states that this definition is 'based on historical background', but also that the principle of *self-identification* as a quilombo must be considered clearly established. Both subjective 'self-recognition' and objective 'historical records' thus became essential criteria for recognition. Self-identification is also the principle used in the ILO Convention 169 of 1989, the Indigenous and Tribal Peoples Convention, which was ratified by Brazil in 2002 (ILO 2009).[9] The Decree of 2003 further expanded the concept of 'occupied lands' to include the areas needed to guarantee quilombos' physical, social, economic and cultural reproduction. This is also in accord with the ILO Convention 169's concept of 'occupied lands', which comprises all lands used for traditional activities by traditional groups, not just those directly occupied and used by the communities. The Presidential Decree shifted titling competence back to INCRA, while the Palmares Foundation was given the authority to issue quilombola certifications of self-identification, thus separating the titling function from that of cultural recognition.

When as much as 2,427 quilombola communities have so far been certified by the Palmares Foundation, this has apparently taken broad sectors of Brazilian society with surprise. Given this number of recognised communities, an equally surprising fact could be that only 163 land titles (regularising 760,016 hectares[10]) had been emitted as of December 2015 (CPI-SP 2015). This involves 16,056 families, representing only 7.5 % of the 214,000 families that the Secretariat for Promotion of Racial Equality (SEPPIR) estimates as the Brazilian quilombola population. At the level of the Brazilian federal government, several factors have impeded the creation of an effective titling program, including competing definitions of quilombos, inter-ministerial disputes over responsibility and shifting state agendas together with inertia and slow bureaucratic procedures. As a result, the majority of the granted land titles have been secured by a few active land agencies at the state-level, which have established separate titling guidelines (Rapoport 2008). These state agencies have, however, only emitted titles to quilombola territories on unoccupied government land (*terra devoluta*). When quilombo's land claims enter into conflict with private property or public use claims, the titling processes have usually been halted. As quilombos often incorporate numerous rural properties and simultaneously public and private lands, most titled quilombos have only part of their lands titled, awaiting complete regularisation from INCRA. In other cases where this federal land agency has titled quilombola lands, the expropriation of third parties' lands has met fierce

[9] Under this Convention, Brazilian *quilombolas* fall under the category of 'tribal peoples'.
[10] The total land area of Brazil is a little over 850 million hectares.

resistance by landowners and other actors who oppose redistribution of land (Rapoport 2008).

The application of the criterion of self-identification, the expanded definition of occupied lands and the expropriation of land held by private parties inside quilombos have all been opposed by the Democrats (formerly Liberal Front Party, a successor of the ruling party under the dictatorship). The Democrats filed the Direct Unconstitutionality Action (ADIN) No. 3239 before the Supreme Court in 2004, claiming that these key provisions of Decree 4.887 were unconstitutional and should be repealed (Browne 2010). The Democrats belong to the Agriculture Parliamentary Front, and have support from the National Confederation of Industry, the National Confederation of Livestock Producers and the Brazilian Rural Society – the confederations that form the powerful agribusiness bloc (*bancada ruralista*) in Brazil. This bloc argues that self-identification and the concept of occupied lands are too vague and give a wide margin for discretion in their interpretation. Instead, they claim that strict criteria should be used to define quilombos, and the lands to be assigned to the communities should only be those effectively occupied for residential purposes at the time of the titling procedure. In 2007, the Democrats and its supporters mobilised their constituencies in the rural areas and started a media campaign against quilombos. A number of television reports were broadcasted on *Rede Globo* – Brazil's largest media conglomerate, questioning the legitimacy of quilombos' rights claims, as well as the certification and titling processes (Rapoport 2008; Farfán-Santos 2015).

The trial on ADIN 3239 was taken up in 2012, and again in 2015, but was suspended both times. However, another constitutional challenge, the Proposed Constitutional Amendment 215 from 2000 (PEC 215), was approved by a special legislative commission in the lower house of Congress in October 2015. This proposal intends to change Articles 45, 61 and 231 of the Brazilian Constitution, as well as Articles 67 and 68 in the Transitory section. These proposed changes involve transferring the responsibility for demarcation of indigenous and quilombola lands and creation of protected areas in Brazil from the Executive to the Legislative, making approval of demarcation the exclusive power of Congress. This will in practice mean that the titling of indigenous and quilombola lands will become increasingly difficult, due to the agribusiness lobby's influence in Congress. Furthermore, PEC 215 seeks to open up for economic exploration, establishment of military bases, installation of communication networks, building of roads, hydropower dams and other projects serving the 'public interest' within indigenous territories, independent of consultations with indigenous peoples. Quilombolas will be directly affected by the proposed change to the 'transitory' Article 68, through the requirement that the community needs to have been physically present on its territory at the date of the enactment of the new Constitution for the Article to apply. This means that quilombos that were expelled from their lands before 1988, will not be able to recover these. PEC 215 will now be forwarded to the Federal House of Representatives to be voted in a plenary session, and if approved, will go to the Brazilian Senate for final approval. Deputies who are against this constitutional amendment claim that its final approval will increase land conflicts (ISA 2015a). These processes, and the fact that powerful actors at the federal level are working to prevent quilombos from benefitting from this right to land (cf. Hall, Hirsch and Li 2011), also have impacts on the ground, which we will address in the next section.

4. Claims for Quilombola Recognition in the Ribeira Valley

The history of quilombos in the Ribeira Valley in the state of São Paulo bears the hallmarks of structured inequality. The formation of quilombos is closely connected with the European occupation and the history of mining and slavery in the region. The littoral city of Cananeia in the Ribeira Valley is believed to be one of the oldest settlement in Brazil, and historical documents indicate that Europeans arrived here even before the official 'discovery' (or rather invasion) of Brazil by Pedro Álvares Cabral in 1500 (Carvalho 2010). Around 1538, the city of Iguape was established in close vicinity to the Ribeira de Iguape River to facilitate expeditions to the interior of the Ribeira Valley to search for precious minerals and capture indigenous peoples for enslavement (Oliveira Jr et al. 2000; Weinstein 2001). Alluvial gold was found in the 1550s and the initiation of mining activities stimulated the foundation of new settlements upstream along the margins of the Ribeira de Iguape River (Diegues 2007; Oliveira Jr et al. 2000). As the indigenous peoples did not 'adapt well to slavery' and were difficult to capture as they knew their territory well, the European colonisers started to introduce African slaves – mainly from present-day Guinea-Bissau, Angola and Mozambique – to the Ribeira Valley during the 17th century (Holanda 2012; Carril 1995).

With time, declining gold deposits in the Ribeira Valley and the discovery of gold in the neighbouring state of Minas Gerais at the end of the 18th century resulted in a large emigration of miners (Diegues 2007). The closing of the gold casting house in 1763 in Iguape marked the end of a 200-year mining period, but marginal mining activities continued until the mid-19th century in some settlements close to the Ribeira de Iguape River (Oliveira Jr et al. 2000). Large-scale rice cultivation was introduced as an alternative economic activity, but since monoculture of rice demanded less labour than gold digging, many slaves were liberated or abandoned relatively early compared to the rest of Brazil. Already around 1780, the free black population outnumbered the slaves in the Ribeira Valley and in 1886, two years before the abolition, only 10% of the black population was enslaved (Carril 1995; Petrone 1966). The former slaves and their descendants settled on land that had either been donated by their former slave masters, inherited from family members or bought, or they settled on unoccupied government land (Figure 1). Here, they engaged in small-scale agriculture, animal-rearing, fishing, hunting and collection of forest products, both for subsistence and for sale to the local market.

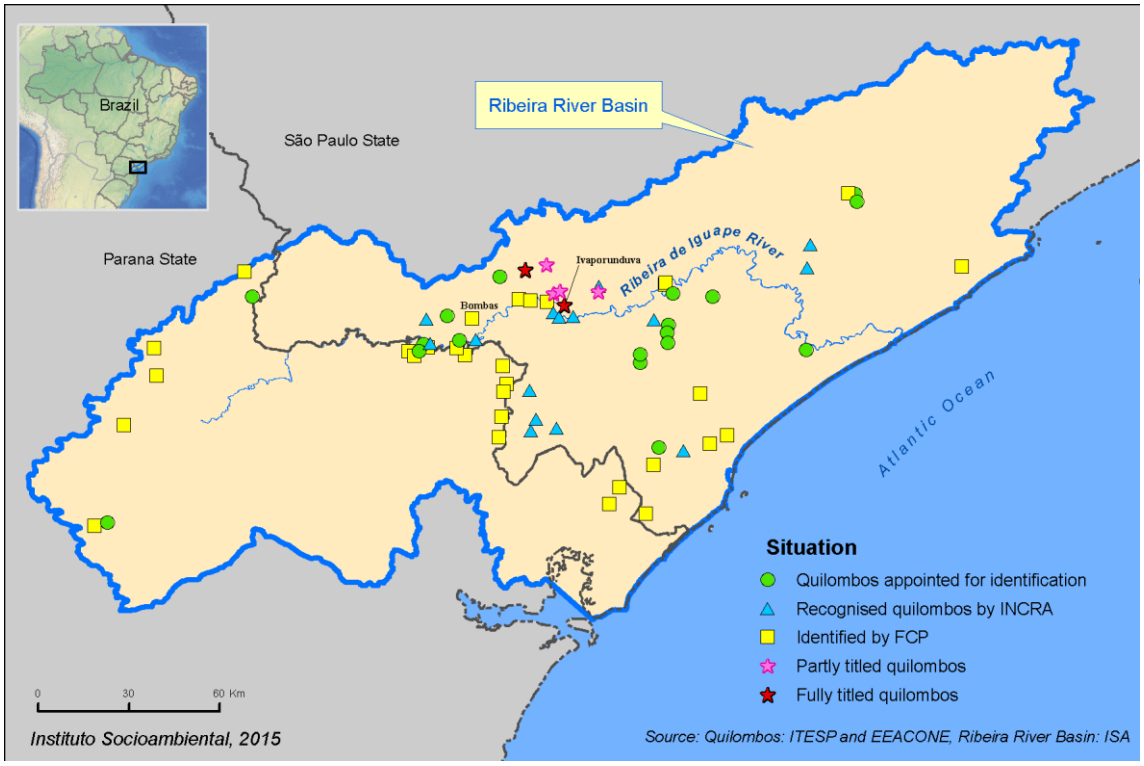


Figure 1: Distribution of the quilombola communities in the Ribeira Valley, showing the different stages of the titling process (Sources: Quilombos – ITESP and EEACONE; Boundary of Hydrographic Basin – ISA 2012 (based on map published by Instituto Socioambiental in Andrade and Tatto [2013]).

The oldest quilombola community in the Ribeira Valley is Ivaporunduva from 1720, which held the densest population of miners and slaves. The official story of the formation of this quilombo narrates the donation of the land by the slave owner Joana Maria upon her death in 1802 with the consecutive liberation of the slaves who had served her (Oliveira Jr et al. 2000). With time, Ivaporunduva turned into an area that attracted a large group of free, freed and run-away slaves who settled close to the Church of *Nossa Senhora do Rosário dos Homens Preto*, inaugurated in 1791. As they dominated navigation well, some inhabitants establish other quilombos along tributaries of the Ribeira de Iguape River and also further inland on fertile unoccupied or abandoned government land. Many chose to live in remote areas to avoid being re-enslaved, or being recruited to the military in connection with the Paraguayan War – with its enormous fatalities – between 1864/65 and 1870 (Oliveira Jr. et al. 2000). Even though the Ribeira Valley hosts geographically distinct quilombola communities, available knowledge indicate that these share a common origin and history (Andrade and Tatto 2013).

The abolition of slavery in 1888 did not substantially alter the situation for the former slaves and descendants of slaves in the Ribeira Valley. For about a century, they were left to provide for their own livelihoods. However, when strictly protected areas were established in the Ribeira Valley and viability studies of the hydroelectric potential of the Riberia de Iguape River were carried out in the 1950s/60s, quilombolas started to face threats of eviction and restrictions on their resource use. On the one hand, many of the protected areas overlapped quilombola lands and on the other, the construction of four proposed hydropower dams[11]

[11] The Tijuco Alto dam planned by the Brazilian Aluminium Company (CBA) and the Itaoca, Funil and Batatal dams planned by the Electrical Company of São Paulo (CESP).

threatened to inundate parts of their lands. These external pressures added to recent land conflicts with farmers who had bought land titles inside quilombos, attracted by tax incentives and other benefits from the government for principally cattle farming and banana plantations. Through the involvement of the base community movement of the Catholic Church, Afro-descendant communities in the area started to join forces and organise in opposition to these external forces, establishing the Movement of People Threatened by Dams (MOAB) in 1989 (Author, a).

In meetings organised by MOAB, different justice-seeking strategies against dispossession were discussed (Author a). Knowledge of the quilombo clause in the 1988 Constitution initiated debates about the potentials for recognition of the local communities as *quilombos*. Although the history of slavery had up to then been supressed, the possibilities opening up with a recognised quilombola identity started a process of re-elaboration of identity within a new context. A reinterpretation of the historical process they had gone through took place where residents began to positively valorise their distinct cultural traits and community practices. Some residents started to consider identifying themselves as quilombola although no slave-descendant community in the Ribeira Valley had referred to itself as a quilombo before the term was used in the Federal Constitution. This is in line with Tania Li's clarification of the concept of 'self-identification':

> [A] group's self-identification as tribal or indigenous is not natural or inevitable, but neither is it simply invented, adopted, or imposed. It is, rather, a *positioning* that draws upon historically sedimented practices, landscapes, and repertoires of meaning, and emerges through particular patterns of engagement and struggle. (Li 2004, 339 [italics in original])

Almeida (2002) makes a similar point, arguing that claims for quilombola identity arise from contextually specific, local notions of land access and natural resource use. The elaboration of identity in relation to legal provisions, such as Article 68, should therefore neither be seen as obtaining a perfect fit between a legal category and a local identity, nor as simply an instrumental approach used by Afro-Brazilians.

Already in the mid-1990s, many residents in different communities self-identified as quilombola and some communities decided to request recognition from the state. Due to the government's delay in implementing 'transitory' Article 68, MOAB contracted an ethnologist and a topographer to undertake studies of potential quilombos in the Ribeira Valley. Eleven quilombos were identified whereby three were chosen for closer study: Ivaporunduva, Praia Grande and São Pedro. Community members of both Ivaporunduva and Praia Grande participated in a self-delimitation of their historical territories, but this was not possible in São Pedro because of a homicide episode where a newly settled farmer had killed an Afro-Brazilian resident. The community did therefore not have the courage to start delimitating its historical territory. A MOAB participant explained this in an interview:

> We were very scared that there would be conflict because there were a lot of farmers who said: 'If you take my land, I will kill you!' There were also news articles with statements like: 'What is this story of quilombo? I bought this land!'

A quilombola leader also mentioned the challenge with third parties:

> It is difficult to say that this is a quilombo, we are quilombolas. There are many interests from other persons inside the territory, so there is a certain risk you take, you

> confront landowners saying that 'there comes the blacks taking my land'. It takes time for the community to get to the point to self-identify and start organising. It is a rather slow process.'

After a process of self-delimitation of the Ivaporunduva territory, about 50 community members filed a lawsuit litigating for recognition as a quilombola group to the Federal Court of São Paulo in 1995. As the judge demanded a certificate of each person entering the lawsuit, it was decided to continue the process with local people represented through an association. According to Brazilian legislation, land ownership has to be assigned to one or more individuals or a legal person. In the early 1990s, there were no specification whether quilombos should be individually or collectively held. In the case of the first recognised quilombo in Brazil, Boa Vista, INCRA had proposed to title individual lots, but the community resisted and claimed collective ownership. This inspired other quilombos to claim collective ownership, since according to their tradition, this would secure areas of habitation and work for each community member (Andrade 2015). Thus, collective ownership would normally not alter local people's everyday life. Each quilombo has its own customary law and this continues in recognised quilombos. The establishment of quilombola associations and collective ownership have by now become the norm for recognition cases.

In addition to litigate for quilombola recognition of Ivaporunduva to the Federal court of São Paulo, MOAB had pleaded allies within the Public Attorney's Office to pressure the state of São Paulo to handle the quilombo provision. This resulted in the Land Institute of São Paulo (ITESP) being given the responsibility to implement the quilombo clause in 1996 (Author, c). New anthropological studies were then carried out to legitimise quilombos' claimed rights to territory.[12] The first quilombola communities were recognised in 1998. These were Ivaporunduva, Maria Rosa, Pedro Cubas, Pilões, and São Pedro that overlapped with the Intervales State Park[13] (Table 1). Recognition of other communities continued from 2001 onwards, and by 2015, 25 quilombola communities in the Ribeira Valley had been recognised by ITESP. However, only six of these have been granted land titles, and Ivaporunduva is the sole community to have a registered land title in the Notary's Office (1 July 2010). In practice, ITESP has only titled unoccupied government land, no private or public use land, and await for INCRA to complete the expropriation and titling process. This must, however, be seen as a political decision. According to a State Attorney:

> 'If the State of São Paulo wanted, it could have expropriated these areas. However, it does not want the responsibility and it does not want to spend money. Agrarian reform is a federal question, but quilombos are not an agrarian question. It is a federal assignment that can be performed by the state'.

[12] The Brazilian Anthropological Association had obtained a contract with the government to provide professionals who could 'produce expert reports in all quilombo recognition cases' (French 2006: 343).

[13] Official recognition of these communities resulted in the Intervales Park retrieving its boundaries from the quilombos.

Table 1: Officially recognised quilombos in the Ribeira Valley (Source: ITESP, 2015)

Community	Municipality	Total areas (ha)	Unoccupied government land (ha)	Private land (ha)	Families (Nº)	Year of recognition	Year of titling
1.Ivaporunduva	Eldorado	2.754,36	672,28	2.082,07	98	1998	2003
2.Maria Rosa	Iporanga	3.375,66	3.375,66	0,00	25	1998	2001
3.Pedro Cubas	Eldorado	3.806,23	2.449,39	1.356,84	40	1998	2003
4.Pilões	Iporanga	6.222,30	5.925,99	296,31	63	1998	2001
5.São Pedro	Eldorado/Iporanga	4.688,26	4.558,20	130,07	39	1998	2001
6.André Lopes	Eldorado	3.200,16	3.049,20	76,14	76	2001	
7.Nhunguara	Eldorado/Iporanga	8.100,98	8.100,98	0,00	91	2001	
8.Sapatu	Eldorado	3.711,62	1.584,06	2.127,56	82	2001	
9.Galvão	Eldorado/Iporanga	2.234,34	1.942,83	291,50	34	2001	2007
10.Mandira	Cananéia	2.054,65	Unspecified area	Unspecified area	16	2002	
11.Praia Grande	Iporanga	1.584,83	4 16,68	1 .104,26	34	2002	
12.Porto Velho	Iporanga	941,00	0,00	941,00	19	2003	
13.Pedro Cubas de Cima	Eldorado	6.875,22	3.074,97	3.800,24	22	2003	
14.Cangume	Itaóca	724,60	0,00	724,60	37	2004	
15. Morro Seco	Iguape	164,69	0,00	164,69	47	2006	
16. Poça	Eldorado/ Jacupiranga	1.126,14	0,00	1.126,14	41	2008	
17. Ribeirão Grande/ Terra Seca	Barra do Turvo	3.471,04	948,87	2.522,17	77	2008	
18. Cedro	Barra do Turvo	1.066,11	0,00	1.066,11	23	2009	
19. Reginaldo	Barra do Turvo	1.279,68	208,23	1. 071,45	94	2009	
20. Pedra Preta/Paraiso	Barra do Turvo	3.280,26	0,00	3.280,26	80	2009	
21. Peropava	Registro	395,98	0,00	395,98	25	2011	
22. Bombas	Iporanga	2.512,73	PETAR	PETAR	16	2014	
23. Aldeia	Iguape	7.350,63	In the process of specification a	In the process of specification	17	2014	
24. Abobral Margem Esquerda	Eldorado	3.459,23	Unspecified area	Unspecified area	38	2014	
25. Engenho	Eldorado	487,60	Unspecified area	Unspecified area	15	2014	

The communities that have not been officially recognised as quilombos in the Ribeira Valley continue to be treated as having illegitimate land claims, and they continue to be excluded from access to basic public services. The communities that have been recognised, but not yet titled, face problems with third parties persisting inside their territories and experience threats or incidents of homicides, invasions, burnt houses and damaged agricultural plots. The slow titling process thus contributes to produce uncertainty within communities, with increasing internal conflicts. A closer examination of the processes in one community, Bombas, further reveals the inherent ambiguity of the quilombola legislation, and give us an intake to a better understanding of the complexity of local social relations shaped through history.

4.1 New Identity, New Conflicts: The Case of the Quilombo Bombas

Bombas is located in the municipality of Iporanga and has been considered the most traditional and the most forsaken quilombo in the State of São Paulo, having no road access,

electricity, sanitation, communication facilities or access to social services (Santos and Tatto 2008; Santos 2010). Silveira (2003), who carried out the anthropological study for the quilombola recognition process, has described the origins of its present-day inhabitants. 'Lower Bombas' was first occupied by people related to current residents in the 1910s, while 'Upper Bombas' was only occupied between the 1920s and 1930s. Both Silveira's study (2003) and present-day Bombas inhabitants' statements indicate the multiple origins of the community, where people with varied backgrounds have come to settle. There has been, and still is, considerable intermarriage with people from adjacent quilombola communities, as well as nearby towns and cities (Author b). Still community members see themselves as one group united by kinship, tradition and work.

The Upper Ribeira State Touristic Park (PETAR) was established in 1958, overlapping Bombas' entire territory, without taking into regard the community's presence. Its territory is located above a limestone ground with numerous caves holding a rich subterranean biodiversity, including the threatened endemic albino catfish *Pimelodella kronei*, of considerable interest to environmentalists. The large extent of Atlantic Forest in the area is also a target for conservation, as it is considered one of the most threatened habitats on the planet (Myers et al. 2000). At the time, Bombas inhabitants were not informed about the creation of PETAR, and did not perceive any alterations in their daily activities until measures were taken to implement the park regulations in 1987. These include restrictions on natural resource use and threats of eviction, which made many inhabitants leave the area. The about 80 families who had lived in the community in the 1970s was reduced to around 15 in the 2000s. At this time, the remaining community members faced increasing difficulties in proceeding with agricultural activities due to a low remaining workforce, and also found it difficult to continue life in a community without access to social services and basic infrastructure development provided by the state (Author b).

In the late 1990s, knowledge of quilombos' rights to land and access to state benefits were gained from other quilombola communities in the Ribeira Valley engaged in MOAB and through active Church-members inside Bombas. A debate ensued in the community on whether they actually were 'quilombolas' and should opt for official recognition from the state as such. At first, many were sceptic. Their experience with public authorities was mainly restricted to encounters with the environmental police and park guards who had fined and threatened them (Author c). They did not trust that the State could do something 'good' to them. An inhabitant from Lower Bombas mentions this uncertainty in an interview: 'Before we did not understand what a quilombo was, if it was good or bad, everyone was in doubt'. After numerous internal discussions, almost all community members came to support recognition as a quilombo, as a means to legitimise and legalise residency in the area and to enjoy public support and assistance, based on the special policies targeting recognised quilombola communities. However, the members of one family in particular refused to be identified as quilombola, opposing the restrictions involved in legalising communal ownership; meaning that they would be unable to sell their land in case they wanted to leave the area, given that collective quilombola land cannot legally be sold, transferred or rented out (Santilli 2010).

An anthropologist, who had undertaken the anthropological studies of the first recognised quilombos in the Ribeira Valley and who now works for the Public Attorney's Office, made a statement about the commonness of internal resistance to quilombola recognition during an interview:

> It is part of the process to have some not wanting to be classified and others who do. In all communities there is a conflict-laden process. The question of recognition alters internal dynamics such as distribution of power. It [quilombola recognition] is an external dynamic that brings internal conflict to a group and initiates discussions of the balance of what one will gain and lose. The inhabitants are part of a network of kinship, neighbourhood, participate in exchanges, but when one starts to mess with the title that a person has managed after many generations, they do not want to lose it. Then people from the outside state that 'they are not united'. This is not right, they are united, but they are also the product of conflictual internal processes. What the public agent is searching is homogeneity, that everyone thinks the same thing and wants the same. This is idealistic. The public agent looks for things to confirm pre-established hypothesis with basis in pre-conceived notions of what an ideal quilombo is. In such a way, you cannot have conflict or disagreement.

Despite the opposition from one family, the community proceeded with a request for recognition in 2002. A resident from Upper Bombas – originally from the 'outside' and one of the few literates in the community – had the quilombola association officially registered. He was also elected as the first President of the quilombola association of Bombas. However, rumours came up that the President was working for PETAR (the Park) and that money collected for the quilombola association was being stolen. This may have been a response to the changes in internal leadership, with a resident from the 'outside' having taken on an important role in the community, and thus getting access to more resources and information. At the next election, a shift in power from Upper to Lower Bombas took place, when an 'inside' resident from Lower Bombas was elected as President, followed by other 'insiders' from Lower Bombas. Historically, it was the oldest inhabitant in Upper Bombas who had held the leadership position; whose house had been used for celebrations, while Catholic masses were held in the nearby chapel. The previously vibrant social life in Upper Bombas gradually declined as more resources were allocated to Lower Bombas. During fieldwork there were tense discussions whether a community centre should be built in Upper or Lower Bombas. In the end, a wooden house was built in Lower Bombas, standing out from the wood-and-clay houses (*pau-a-pique*) common in the community. Community meetings and celebrations were from then on held there.

The claim for quilombola recognition triggered internal changes in the community, but relations with external actors also changed. Bombas inhabitants had historically had a strained relationship with state actors who had enforced environmental laws at the expense of their livelihoods, and also threatened inhabitants with eviction. With the initiation of the recognition process, the residents established contact with ITESP which provided technical assistance to other quilombos in the Ribeira Valley. Encounters with a state organ that aimed to promote quilombos' interests made inhabitants build trust in the state. But this process of trust-building was broken when São Paulo's Environmental Office halted the recognition process in 2002. The Environmental Office required environmental studies to be carried out in the territory in addition to anthropological studies, due to the community's location inside a protected area. The response of the Bombas residents was a demand to be recognised as a quilombo *before* additional studies could be undertaken, leading to a deadlock until 2010 (Author c). Meanwhile, the Socio-environmental NGO *Instiuto Socioambiental* (ISA) had started to work in the community in 2006 in connection with a strategic planning project for sustainable use of quilombola territories (Santos and Tatto 2008). ISA's status as an independent non-profit NGO and the organisation's good relationship with other quilombola

communities in the Ribeira Valley and MOAB contributed to the building of trust with Bombas inhabitants. In 2010, ISA convinced Bombas residents to enter a negotiation with the Forest Foundation in order to proceed with the quilombola recognition process. When the negotiation process started, the family that had positioned itself against quilombola recognition reacted by both threatening and physically attacking other community members. This situation created fear and insecurity especially among those who had to pass by their houses, and led to high levels of social tension within the community.

Due to the tense situation that developed through the year 2013, the quilombola association in Bombas found it was urgent to proceed with the quilombola recognition process. As a result, the association accepted a territorial proposal presented by the Forest Foundation which excluded a substantial part of Bombas' traditional territory. This area, called Córrego Grande, covered 648 hectares. This reduction of the territory of the quilombo was legitimated by arguments made by forest authorities of the need to protect the blind albino catfish and the Atlantic Forest in the name of a 'national public good', and the 'local incompetence' to manage the area (Author c). In March 2014, the quilombola association proceeded to file a lawsuit since the Forest Foundation had not immediately complied with the association's conditions for accepting the proposal which excluded´ Córrego Grande from their territory. These had been: 1) immediate quilombola recognition, 2) retrieval of PETAR's boundaries overlapping Bombas' territory, and 3) construction of an access road and other infrastructural development. As a response, Bombas was officially recognised as a quilombo in November 2014. In July 2015, the Judge of the lawsuit, the Public Defender and the State Attorney went to the community to make a judicial inspection. They were concerned with the living conditions they observed in the community, and a few days later, an injunction was issued recognising the need to open road access to Bombas (ISA 2015b). The injunction also determined that a negotiation roundtable had to be established with the participation of Bombas inhabitants as a way to monitor the compliance of the decision and to influence the definition of the best route of the road (ISA 2015b). Meanwhile, the family opposing quilombola recognition left the community.

5. Concluding Discussion

In this article, we have been concerned with how historical processes over time have been instrumental in excluding enslaved Africans and their descendants from full citizenship, as well as land ownership in Brazil. We have also shown how ambiguities inherent in both policy regulations and contemporary processes aiming to legalise land rights for present-day quilombos, are reflected in processes on the ground. The colonial and post-colonial past left behind a problematic land ownership system which has encouraged land concentration in the hands of a few landed elites, and discouraged any substantial redistribution of land (Loloum and Lins 2012). After the official abolition of slavery in 1888, quilombos were omitted from legislation and many quilombos' lands were seized by force by neighbouring landowners, but also by the state, or by private companies taking advantage of their precarious legal situation (Leite 2015). The insertion of quilombos' rights to land ownership in the 1988 Constitution was meant as reparation for historical injustices – slavery, racial discrimination and suppression of rights – but the quilombo provision has had a hard time in reconfiguring a historically violent and exclusionary land structure. The different presidential administrations have taken different positions toward the present-day quilombos, and political pressure from powerful groups has led to a series of legal challenges, constraining the implementation of the quilombo provision.

Fulfilment of quilombos' constitutional land rights in Brazil raises the conundrum of exclusion, as when some have their rights enhanced others will, by implication, have their rights reduced (Hall, Hirsch, and Li 2011). The moves by certain groups to challenge the 2003 Decree 4.887 (through Direct Unconstitutionality Action 3239) and the Proposed Constitutional Amendment 215 (PEC 215) indicate that landowners, politicians and other powerful actors fear that the implementation of the quilombo provision will result in expropriation of large land areas from established landowners, and also render land inaccessible to other uses. The agribusiness lobby in Brazil has been particularly eager to change regulations, seeking to legitimate quilombos' continued exclusion from legal land rights. These proposals do, however, not take into account the fact that Brazil has ratified international treaties that actually protect these rights, such as the United Nations Declaration on the Rights of Indigenous Peoples (2007) and the ILO Convention 169 on Indigenous and Tribal Peoples (2002). Neither do they take into account the precedents of the Inter-American Court of Human Rights on these issues. The approval of PEC 215 by a special legislative commission in the lower house of Congress in October 2015 is a sign that Brazil is no longer in the forefront, but rather taking a regressive approach to addressing both quilombolas and indigenous peoples. This 'juridical contra-revolution' (Santos 2011) in the form of 'conservative judicial activism which seeks to neutralise the democratic gains achieved over the past two decades by political means in Latin America' has encroached on many recent decisions by the Brazilian Supreme Court. The Brazilian government's handling of the quilombo provision has over time shown a lack of analytic clarity, political will and leadership, resulting in long, slow and confusing titling processes and unresolved land ownership status in thousands of quilombola communities. This has in turn contributed to increase local conflicts between quilombos and third parties, as well as among quilombola residents posing different kinds of claims to the land.

Current land conflicts in the Ribeira Valley can be understood in the context of historical and contemporary settlement processes, but these can also be attributed to the actual design of quilombola policies. The mix of federal and state government agencies dealing with the quilombo clause, often with contradictory agendas, rules and enforcement procedures, complicates the notion of a singular national policy context (Hall, Hirsch, and Li. 2011; Ribot and Peluso 2003). The Brazilian bureaucracy has created regulations that overlap each other (e.g. environmental legislation and quilombola legislation) and we thus observe how exclusion's double-edge works through inconsistent laws that enable different constituencies to argue that right is on their side. This was seen in the case of the quilombo Bombas, where inhabitants claimed land rights based on a quilombola identity and historical occupation, while forest authorities claimed the area to be a protected area based on its environmental and biodiversity values. With different claims to the land made within the community, based on individual land titles and collective ownership on each side, exclusions' double edge also played out at the local arena.

Our account here, showing how exclusion operates through the shifting use of regulation, force and legitimation, needs to be understood within a context of struggles and tensions at different scales. We see that Brazil has a problematic land ownership system, which has encouraged land concentration in the hands of a few landed elites. Many of the land titles obtained during the *sesmaria* system, as well as after the implementation of the 19th century Land Law give legal status to land that has been grabbed through means that at present are not considered legitimate. Also more recent land regulations have served as legitimations of new forms of land grabbing, as highlighted by e.g. Oliveira (2011). In this sense, favouring the

rights of current landholders with formal titles over those claimed by present-day quilombolas can be said to represent a legitimation of both historical and recent injustices by upholding a status quo. Even so, it is mainly landed elites' interests that have been ascertained by the Brazilian state apparatus. In order to get a more just land distribution, we believe there is a need to adopt a social justice perspective – a concern with who the people are and how they came to be in possession of land (Hall, Hirsch, and Li. 2011), or how they came to be excluded from legal land rights.

Acknowledgements: We would like to thank the inhabitants of Bombas for accepting this research, for their hospitability and time and for providing crucial insight into the case. We are also indebted to inhabitants of other quilombos in the Ribeira Valley who have participated in this research as well as other key informants. We are further grateful for the help provided by Nilto Tatto at the Socioenvironmental NGO *Instituto Socioambiental* (ISA) and the rest of the staff at the Ribeira Valley Programme. Lastly, we would like to thank Rose Rurico Saco and Cicero Augusto at ISA's Geoprocessing laboratory for making the map. This research has been financed by a PhD grant from the Norwegian University of Life Sciences (NMBU).

References

Almeida, M. W. B. 2002. "Os quilombos e as novas etnias." In *Quilombos: identidade étnica e territorialidade*, edited by E. C. O'Dwyer, 43-81. Rio de Janeiro: Editora FGV.

Anderson, R. N. 1996. "The quilombo of Palmares: a new overview of a maroon state in seventeenth-century Brazil." *Journal of Latin American Studies* 28:545-566.

Andrade, A. M., and N. Tatto. 2013. *Inventário cultural de quilombos do Vale do Ribeira*. São Paulo: Instituto Socioambiental.

Andrade, L. M. M. 2015. "Quilombolas em Oriximiná: Desafios da propriedade coletiva." In *Entre águas bravas e mansas. Índios e quilombolas em Oriximiná*, edited by D. F. Grupioni and L. M. M. Andrade, 194-209. São Paulo: Commisão Pró-Indio de São paulo e Ipé - Instituto de Pesquisa e Formação Indígena.

Arruti, J. M. 2006. *Mocambo: antropologia e história do processo de formação quilombola*. Bauru, SP: Edusc.

Barth, F. 1969. *Ethnic groups and boundaries: the social organization of culture difference.* Bergen, Oslo: Universitetsforlaget.

Brazil. 2010. *Constitution of the Federative Republic of Brazil.* 3rd edition. Documentation and Information Center. Brasília: Publishing Coordination.

Browne, N., A. Dana and K. Shea. 2010. *Land rights and socio-economic development of Afro-Brazilian communities*. Duke University of Law School: Duke Law Scholarship Repository.

Cardoso, L. and L. Gomes. 2011. *Movimento social negro e movimento quilombola: para uma teoria da tradução*. Paper presented at the XI Congresso Luso Afro-Brasileiro de Ciências Sociais, Salvador, 7-10 August.

Carneiro, E. 1958. *O quilombo dos Palmares*. 2nd ed. Vol. 302, *Brasiliana*. São Paulo: Companhia editora nacional.

Carril, L. F. B. 1995. "Terras de negros no Vale do Ribeira: territorialidade e resistência." Master diss., University of São Paulo.

Carvalho, I. 2010. *Cananeia o primeiro povoado do Brasil: A saga do Bacharel, a verdadeira história do Brasil*: Editora SOLIS.

Conrad, R. E. 1994. *Children of God's fire: a documentary history of black slavery in Brazil*

Pennsylvania: Pennsylvania State University Press.
CPI-SP. 2015. "Terras quilombolas." Comissão Pró-Índio de São Paulo. Accessed 17.06.2015. http://www.cpisp.org.br/terras/asp/terras_tabela.aspx.
Dagnino, E. . 2005. "'We all have rights, but...' Contesting concepts of citizenship in Brazil." In *Inclusive Citizenship: Meanings and Expressions*, edited by N. Kabeer, pp. 149-163. London: Zed Books.
Diegues, A. C. 2007. *O Vale do Ribeira e litoral de São Paulo: meio-ambiente, história e população*. São Paulo: CENPEC.
Escobar, A., and S. E. Alvarez. 1992. *The Making of social movements in Latin America: identity, strategy, and democracy*. Boulder, Colo.: Westview Press.
Farfán-Santos, E. 2015. ""Fraudulent" identities: the politics of defining quilombo descendants in Brazil." *The Journal of Latin American and Caribbean Anthropology* 20 (1):110-132.
French, J. H. 2006. "Buried alive: imagining Africa in the Brazilian northeast." *American Etnologists* 33(3):340-360.
French, J. H. 2009a. "Ethnoracial identity, multiculturalism and neoliberalism in the Brazilian Northeast." In *Beyond neoliberalism in Latin America?: societies and politics at the crossroads*, edited by J. Burdick, P. Oxhorn and K.M. Roberts, 101-113. New York: Palgrave Macmillan.
French, J. H. 2009b. *Legalizing identities: becoming Black or Indian in Brazil's northeast*. Chapel Hill: University of North Carolina Press.
Gusmão, N. M. 1995. "Os direitos dos remanescentes de quilombos." *Cultura Vozes* 98 (6).
Hall, D., P. Hirsch, and T. M. Li. 2011. *Powers of exclusion: land dilemmas in Southeast Asia*. Singapore: NUS Press.
Holanda, Sergio Buarque de. 2012. *Roots of Brazil*. Notre Dame, Ind.: University of Notre Dame Press.
ILO. 2009. "Indigenous and tribal peoples' rights in practice: A guide to ILO Conention No. 169." In *Programme to promote ILO convention No. 169 (PRO 169)*: International Labour Standards Department.
ISA. 2015a. "Comissão da Câmera aprova parecer da PEC 215 com novas alterações." Notícias Socioambientais, October 28.
ISA. 2015b. "Liminar determina que quilombo de Bombas, no Vale do Ribeira, tenha estrada de acesso." Notícias Socioambientais, July 30.
Lazarus, R. J. 1993. "Pursuing "Environmental Justice": the distributional effects of environmental protection." *Northwestern University Law Review* 87 (3):787-857.
Leite, I. B. 2008. "O projeto político quilombola: desafios, conquistas e impasses atuais." *Estudos Feministas* 16 (3):965-977.
Leite, I. B. 2015. "The Brazilian quilombo: 'race', community and land in space and time." *The Journal of Peasant Studies* 42 (6):1225-1240. doi: 10.1080/03066150.2015.1016919.
Li, T. M. 2004. "Environment, indigeneity and transnationalism." In *Liberation ecologies: environment, development, social movements*, edited by R. Peet and M. Watts. London: Routledge.
Linhares, L. F. 2004. "Kilombos of Brazil: identity and land entitlement." *Journal of Black Studies* 34 (6):817-837.
Loloum, T., and C. Lins. 2012. "Land and power: an ethnography of Maroon heritage policies in the Brazilian Northeast." *International Journal of Heritage Studies* 18 (5):495-512. doi: 10.1080/13527258.2011.632024.
Machado, M. H. P. T. . 2006. "From salve rebels to strikebreakers: the quilombo of Jabaquara and the problem of citizenship in late-nineteenth-century Brazil." *Hispanic American*

Historical Review 86:247-274.
Martins, S. d. S., C. A. Medeiros, and E. L. Nascimento. 2004. "Paving paradise: the road from "racial democracy" to affirmative action in Brazil." *Journal of Black Studies* 34 (6):787-816.
Mattoso, K. M. D. Q. 1986. *To Be a Slave In Brazil: 1550-1888*. New Brunswick: Rutgers University Press.
Mintz, Sidney W. 1985. *Sweetness and power: the place of sugar in modern history*. New York: Viking.
Myers, N., R. A. Mittermeier, C. G. Mittermeier, G. A. B. da Fonseca, and J. Kent. 2000. "Biodiversity hotspots for conservation priorities." *Nature* 403 (6772):853-858. doi: http://www.nature.com/nature/journal/v403/n6772/suppinfo/403853a0_S1.html.
Oliveira Jr, A. N., D. Stucchi, M. F. Chagas, and S. S. Brasileiro. 2000. "Comunidades negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria Rosa e Pilões." In *Negros do Ribiera: Reconhecimento étnico e conquista do território*, edited by T. Andrade, C. A. C. Pereira and M. R. Oliveira Andrade, pp. 39-192. São Paulo: ITESP.
Pahnke, A., R. Tarlau, and W. Wolford. 2015. "Understanding rural resistance: contemporary mobilization in the Brazilian countryside." *The Journal of Peasant Studies* 42 (6):1069-1085. doi: 10.1080/03066150.2015.1046447.
Penna-Firme, R., and E. Brondizio. 2007. "The risks of commodifying poverty: Rural communities, *quilombola* identity and nature conservation in Brazil." *HABITUS* 5 (2):355-373.
Petrone, P. 1966. *A baixada do Ribeira*. São Paulo: FFCLUSP.
Porto, M. F., T. Pacheco, and J.P. Leroy. 2013. *Injustiça ambiental e saúde no Brasil: o mapa de conflitos*. Rio de Janeiro: Fiocruz.
Rapoport. 2008. *Between the law and their land: Afro-Brazilian Quilombo communities' struggles for land rights*. University of Texas of Austin: Rapoport Center for Human Rights and Justice.
Ribot, J. and N. Pelusso. 2003. "A theory of access." *Rural Sociology* 68(2):153-181.
Santilli, J. 2010. "Human-inhabited protected areas (HIPAs) and the law: integration of local communities and protected area in Brazilian law." *Journal of Sustainable Forestry* 29 (2-4):390-402.
Santos, B. S. 2011. *Para uma revolução democrática da justiça*. 3rd ed. São Paulo: Cortez.
Santos, K. M. P. , and N. Tatto. 2008. *Agenda socioambiental de comunidades Quilombolas do Vale do Ribeira*. São Paulo: Instituto Socioambiental.
Santos, M. W. 2010. "Saberes da terra: o lúdico em Bombas, uma comunidade Quilombola (estudo de caso etnográfico)." PhD diss., University of São Paulo.
Schmitt, A., M. C. M. Turatti, and M. C. P. Carvalho. 2002. "A atualização do conceito de quilombo: Identidade e território nas definições teóricas." *Ambiente & Sociedade* 5 (10):1-8.
Schwartz, S. B. 1992. *Slaves, peasants, and rebels: reconsidering Brazilian slavery*. Urbana, ILl.: University of Illinois Press.
Scott, R. J. 1988. *The Abolition of slavery and the aftermath of emancipation in Brazil*. Durham: Duke University Press.
Silveira, P. C. B. 2003. "Relatório técnico científico sobre os remanescentes da comunidade de quilombo de Bombas, Iporanga-São Paulo." São Paulo: ITESP (unpublished).
Stocks, A. 2005. "Too Much for Too Few: Problems of Indigenous Land Rights in Latin America." *Annual Review of Anthropology* 32:85–104.
USAID. 2011. *USAID country profil. Property rights and resource governance - Brazil*. USAID.

Weinstein, B. 2001. "The decline og the progressive planter and the rise of subaltern agency: shifting narratives of slave emancipation in Brazil." In *Reclaiming the political in Latin American history: essays from the North*, edited by G. M. Joseph, 81-101. Durham: Duke University Press.

Hum Ecol (2014) 42:913–927
DOI 10.1007/s10745-014-9691-3

Social-Ecological Changes in a *Quilombola* Community in the Atlantic Forest of Southeastern Brazil

Kjersti Thorkildsen

Published online: 23 August 2014

Abstract Through a combined adaptive cycle and political ecology approach, this article explores how the Afro-Brazilian *Quilombolas* of Bombas, living inside the protected area of PETAR, respond to and shape social-ecological changes in the Atlantic Forest. Field data reveal that both environmental restrictions and social policies of state transfer payments and food packages have contributed to decreased engagement in agricultural practices, loss of traditional knowledge, and reduced agro-biodiversity. The claim to land rights based on a *Quilombola* identity and recent negotiations with forest authorities insinuate a shift of this trend. Contrary to dominant conservation narratives, the findings indicate that small-scale shifting cultivation practices by the *Quilombolas* have the potential to increase structural ecological complexity of the Atlantic Forest. The article therefore argues that legalization of settlement and subsistence activities is important not only for livelihood security and social cohesion of Bombas inhabitants, but also possibly for biodiversity conservation.

Keywords *Quilombola* · Shifting cultivation · Atlantic Forest · Biodiversity conservation · Brazil

Introduction

The issue of *Quilombos*[1] entered the Brazilian political scene with the promulgation of the renewed and more democratic Federal Constitution of 1988 following the end of military rule (1964–1985). With article 68 of the Temporary Constitutional Provisions Act, remnants of rural Afro-Brazilian *Quilombola* communities were for the first time recognized as rightful owners of the land they occupied (Rapoport Center 2008). Several *Quilombola* communities are situated in the Ribeira Valley in the State of São Paulo in southeastern Brazil, linked to the early historical introduction of slaves for use in gold mining in the sixteenth century (Queiroz 1983; Oliveira Jr *et al.* 2000). With the demise of mineral extraction in the beginning of the eighteenth century, the Ribeira Valley became a region where slaves were freed or abandoned earlier than in other parts of the country[2] (Castro *et al.* 2006; Diegues 2007). According to the Coordination and advisory team for black and *Quilombola* communities in the Ribeira Valley (EEACONE), 88 *Quilombola* communities live in the region (Andrade and Tatto 2013). Of these, Bombas is often considered to be the most remote and traditional, but has not yet been officially recognized (Santos and Tatto 2008; Santos 2010). The Land Institute of São Paulo's Technical and Scientific Report, based on an anthropological study, points to strong community ties and characteristics of a *Quilombo*, concluding that Bombas adequately fits the legal criteria for due recognition (Silveira 2003). However, as Bombas is situated inside the Upper Ribeira State Touristic Park (PETAR), the recognition process was halted by São Paulo Environmental Office in 2003, demanding environmental studies of the territory. Because of the historically strained relationship with forest authorities, Bombas inhabitants refused the entrance of researchers to undertake such studies before being recognized. Meanwhile, as the process remains deadlocked, community residents are excluded from access to social services and infrastructure development.

This predicament derives from Brazil's adoption of the North American "fortress approach" to conservation in the 1930s, where human occupation and resource extraction were

[1] The word *Quilombo*, or maroon, refers to a settlement of descendants of either run-away slaves, slaves who bought their freedom, or freed slaves who received land by donation or through heritage, or who occupied abandoned or unoccupied government lands (Schmitt *et al.* 2002). *Quilombola* is the adjective of *Quilombo* and can refer to a resident, a community, an association, a tradition, etc.

K. Thorkildsen (✉)
Department of International Environment and Development Studies, Noragric, Norwegian University of Life Sciences, P.O. Box 5003, NO-1432 Ås, Norway
e-mail: kjerst@nmbu.no

[2] Brazil officially abolished slavery in 1888.

deemed incompatible in protected areas[3] (Diegues 1998; Penna-Firme 2013). PETAR was the first protected area to be established in the State of São Paulo in 1958 and was based on a notion of "wilderness" without human interference. The prime goal was to protect more than 350 limestone caves from mining, "virgin" Atlantic Forest from logging, and endemic fauna and flora from extraction (Fundação Florestal 2010). When the boundaries of PETAR were drawn, the entire territory of Bombas was included in the more than 35,000 ha Nature Park. No consideration was given to the inhabitants of Bombas; rather, their subsistence practices and residence became prohibited by law (Silveira 2001). However, it was not until 1987 that efforts were made to implement decree 32.283/1958 establishing PETAR, and community members began to face environmental restrictions on their resource use and threats of eviction.

The majority of protected areas created during Brazil's military dictatorship persisted as "paper parks" until the mid-1980s when international and national pressure from conservation organizations triggered implementation, ultimately leading to violations of land rights and social marginalization of expelled forest inhabitants (Diegues 2011). Since then, because of disruption of residents' livelihoods and poor environmental protection results, this "fortress approach" to conservation has been criticized by social-environmental movements and organizations, social scientists, and more recently, a growing number of natural scientists worldwide (e.g., Gomez-Pompa and Kaus 1992; Stevens and de Lacy 1997; Neumann 2004; Brockington *et al.* 2008; Oudenhoven *et al.* 2011; Robbins 2012; Benjaminsen and Bryceson 2012). A number of scholars have questioned equilibrium theories of climax forests in stable states, often used in support of creating strictly protected areas aimed at reducing variability by applying external controls (e.g., Fairhead and Leach 2000; Zimmerer 2000; Forsyth and Walker 2008; Beymer-Farris 2013). These critics emphasize the importance of small-scale disturbances caused by human actors in producing biologically diverse forests in multiple states. Moreover, in Brazil, the significance of traditional peoples' knowledge and their balanced relationship with the Atlantic Forest has been raised and used as an argument to legalize their settlements within these areas (Sanches 2001; Ferreira 2004; Rezende da Silva 2008; Diegues 2011).

To explain how the *Quilombolas* of Bombas respond to and shape social-ecological changes, this article explores historical and contemporary social, ecological, economic, and political processes that have affected their livelihoods and the Atlantic Forest. Even though the majority of *Quilombos* in the Ribeira Valley are situated in forest areas, most studies of such communities have either looked at social or ecological aspects, treating these dimensions separately. Few studies have analyzed the way *Quilombolas*' cultural dynamics and subsistence strategies have changed over time and how this has shaped and maintained the Atlantic Forest, and even fewer studies have taken into account the political dimensions of these changes (Pedroso *et al.* 2008; Pedroso *et al.* 2009; Munari 2009; Adams *et al.* 2013). I seek to investigate these gaps by adopting an interdisciplinary approach.

Theoretical and Methodological Approach

As a means to analyze processes of change in the social-ecological system of Bombas, I combine the adaptive cycle much used in resilience literature with insights from political ecology. The adaptive cycle was originally developed by Crawford Stanley Holling (1986) who also introduced the concept of ecological resilience in an effort to study how ecosystems cope with and adapt to change at various spatial and temporal scales. In contrast to stable equilibrium assumptions, Holling's research highlights ecosystems' multi-equilibrium dynamics and cyclical nature. According to the adaptive cycle, an ecosystem proceeds from fast growth (exploitation - r) slowly to a climax community (conservation - K), then rapidly to collapse or release (creative destruction - Ω), and rapidly to reorganization (renewal - α), before returning to the growth phase (Holling 1986). During the long, slow progression from r to K, organization or connectedness is increased accompanied by gradual accumulation of capital. As stability increases, variability and diversity decreases and there is a diminished likelihood that novelty will arise. The ecosystem eventually becomes so over-connected that rapid discontinuous change is triggered leading to stored capital being released, which may result in some attributes of the system being lost. This is followed by a period of reorganization during which innovation and adaptation can take place. In the following r phase, the system settles into a new trajectory.

The concept of the adaptive cycle has in more recent years been further developed to analyze integrated social-ecological systems and adaptive management (e.g., Gunderson and Holling 2002; Seixas and Berkes 2003; Widlock *et al.* 2012). The social science component is, however, still relatively weakly developed and society is often portrayed as a closed system devoid of human agency. Moreover, the "social-ecological resilience" approach, upon which the adaptive cycle builds, has been criticized for being ahistorical and for not sufficiently addressing social justice, power relationships, and the role of politics in shaping resource access and control (Turner 2008; Davidson 2010; Beymer-Farris *et al.* 2012; Beymer-Farris 2013). As a way to expand the theory of the adaptive cycle to also incorporate historical and political

[3] The establishment of a number of sustainable use areas since the mid-1980s, permitting human settlement and low impact resource use, shows a positive trend towards more socially and environmentally just conservation approaches in Brazil.

dynamics and human agency, I have chosen to integrate it with insights from political ecology inspired by Beymer-Farris (2013). The field of political ecology places emphasis on how institutional history and existing political-economic structures and embedded power relations influence resource access and management, and has been employed to examine political struggles and adaptive capacities of human societies (e.g., Fairhead and Leach 2000; Zimmerer 2000; Neumann 2004; Porro 2005; Robbins 2012). Political ecology offers a critical perspective on biodiversity conservation and the generally problematic relationship between protected areas and human communities.

Methods

The primary data used in this article were obtained from ethnographic fieldwork in Bombas with participant observation and registration in a field diary, as well as 30 recorded open- ended in-depth interviews with community members, former inhabitants, leaders from other *Quilombola* communities in the municipalities of Eldorado and Iporanga, government officials, politicians, lawyers, researchers, teachers, tourist guides, and representatives from NGOs, social movements, and religious orders (2010–2013). Insight was also gained from informal conversations, attending meetings, public hearings, and seminars with community members and other key actors. Historical data were obtained from traditional oral accounts and combined with official documents and publications, contributing towards the reconstruction of the social, economic, and political past of the Ribeira Valley. Additionally, changes in land cover and forest patterns in Bombas through time were analyzed by classifying and comparing an aerial photo from 1962 and three satellite images from 1990, 1999, and 2010 with ArcGis software[4]. Land cover was classified into three categories: (1) agricultural activities: home gardens, cultivation plots, and recent fallows of up to 3 years; (2) regenerating forests of 4–10 years; and (3) forest areas > 10 years, calculating the size and number of patches in each class. We should be mindful of the fact that the resolutions of the satellite images were not equal, namely, 30 m for the Landsat image of 1990, 15 m for the Landsat image of 1999, and 2.5 m for the SPOT image of 2010. This may have affected the visual assessment of land cover. Classification of land use in the four periods and interpretation of the observed changes were therefore cross-checked with the inhabitants of Bombas in a focus group discussion held in the community in April 2013.

[4] The aerial photo was obtained from the Department of Geography at the University of São Paulo while the Landsat satellite images from 1990 and 1999 and the SPOT satellite image from 2010 were obtained from the socio-environmental NGO Instituto Socioambiental (ISA) in São Paulo.

The Community of Bombas

Bombas is located in the municipality of Iporanga, about five kilometers from the dirt road linking Iporanga and Apiaí. Because of its steep terrain, access to the community is difficult and time-consuming. The only way to reach Bombas is by foot or on horseback. Historical use and occupation have given rise to a territory of 3,229 ha (Fig. 1). All areas in Bombas have been inhabited, but Córrego Grande has been left fallow for many years. The landscape is characterized by a mosaic of mature forest, secondary forest in regeneration, and recently cultivated areas. The bedrock is principally limestone with many underground caves (Fundação Florestal 2010). Twenty-seven houses made of wood and clay are scattered throughout the territory and there is no village center (Santos and Tatto 2008). However, inhabitants refer to two nuclei as Bombas and Cotia where the two schools are situated. The majority of inhabitants are illiterate and education services are meager, offering classes from only the first to fourth grade in elementary education. In addition to having no road access, there is no electricity, basic sanitation, garbage collection, health services, or public phone in contrast to other *Quilombola* communities in the Ribeira Valley. The community center is in Bombas, while the once-important chapel, now in ruins, is located in Cotia.

The History of the Bombas Settlement

According to interviewees, the Bombas valley used to be crossed by indigenous peoples who migrated southeast from the high plains in search of fish and mollusks on the Atlantic coastline. Archaeological studies carried out by de Blasis and Robrahn (1998) support this claim, showing that the valley was a pre-historic route of communication between the Atlantic highland and the lowland of Ribeira. In Bombas, arrow heads can be found in many archaeological sites and inhabitants talk about an indigenous cemetery in Cotia (Silveira 2003). Indigenous peoples have had a vital role in the Ribeira Valley in giving names to geographic locations, fauna, and flora as well as inventing tools for hunting, fishing, and agriculture (Diegues 2007). The practice of shifting cultivation is an indigenous heritage representing adaptations to household mobility and subsistence economy (Candido 1964). Manioc cultivation and the processing of flour is a practice adapted to soil and rainforest conditions, also originating from indigenous peoples (Adams *et al.* 2013). Even though Bombas has been used and occupied sporadically for hundreds or thousands of years, no titles were registered in the area until 1855/56 when 16 persons claimed to possess land (Silveira 2003). However, this does not necessarily imply that these people lived there and used the land. Ângela Ursulino de Freitas from Baú is considered one of the first inhabitants with kinship relations to contemporary inhabitants, settling around

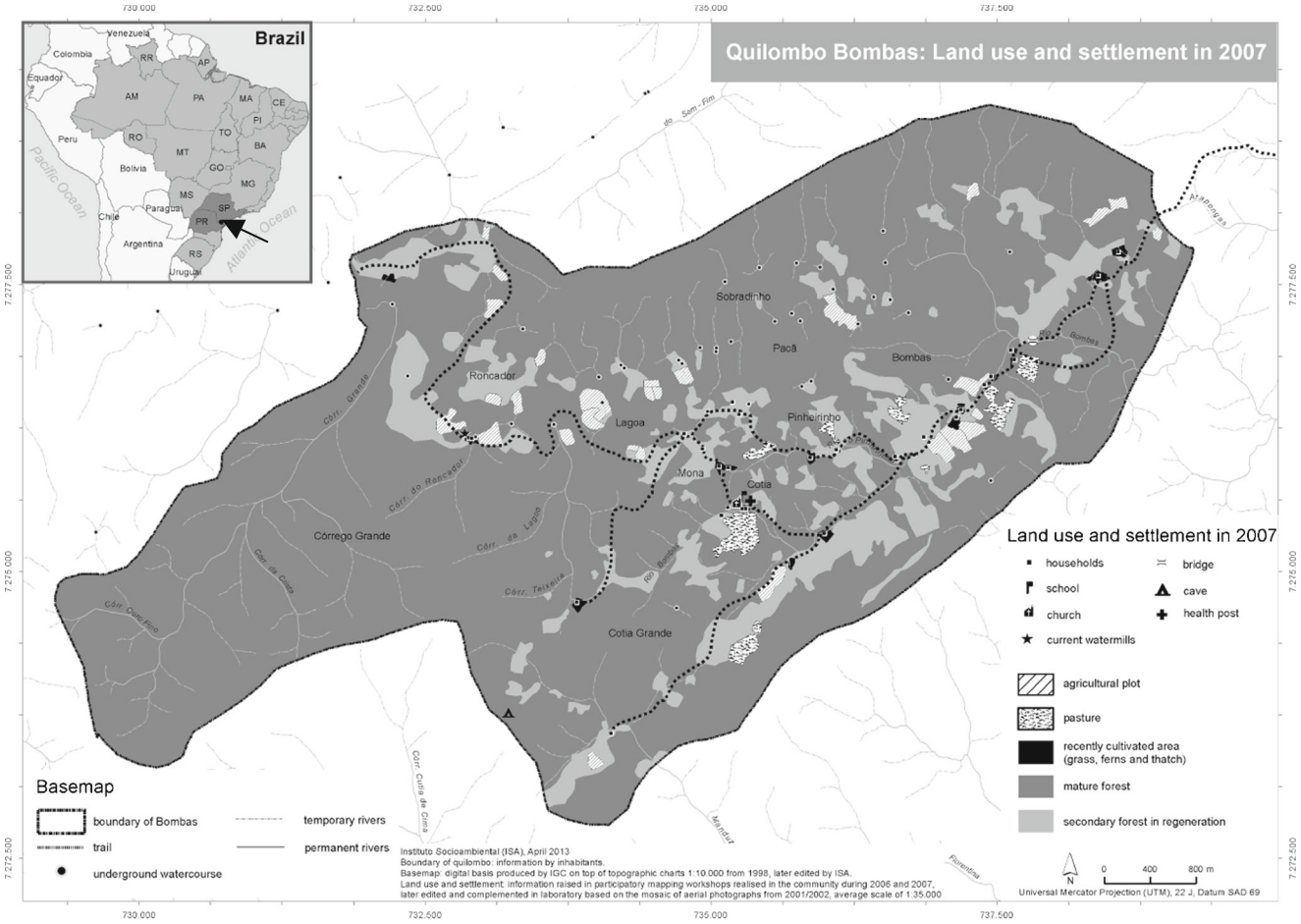


Fig. 1 Map of the territory of Bombas showing land use and settlements in 2007 (Santos and Tatto 2008)

1910. According to her grandchildren, she used to be a slave. What is apparent from Silveira's study (2003) and also from Bombas inhabitants' statements is that the origin of the community stems from different occupations of people with varied backgrounds. Despite this, the community members see themselves as one group united by kinship, affinity, and work.

Traditional Resource use in the Atlantic Forest

At the time of the settlement of Bombas, natural resources and land were abundant and it was possible to freely choose areas for building of houses and opening of agricultural plots. An agricultural plot belonged to the person who first cleared and farmed it, and according to the degree of kinship, this "owner" could assign planting rights to relatives. Through farming, the community members of Bombas could ensure calories and protein in their diet, growing annual and perennial food crops. Small home gardens were planted with a wide variety of vegetables, herbs, and fruits and short-term subsistence crops such as rice, beans, maize, sugar cane, and manioc were cultivated in agricultural plots using shifting cultivation techniques. This agricultural system is widespread throughout tropical forest habitats in Brazil (Sanches 2001; Porro 2005; Pedroso Jr. *et al.* 2009; Hanazaki *et al.* 2013) and in other tropical areas in the world (van Vliet *et al.* 2012). Physical conditions, such as forest age (stage of succession), soil properties, and historical use were considered when a plot was chosen for cultivation. The steepest and rockiest areas were generally avoided and therefore covered by mature forest. A forest patch in secondary regrowth was preferred as it was rich in organic matter and trunk diameter was low and therefore less labor intensive to clear. Undergrowth was first removed by hoe followed by the cutting of trees with an axe. After being left to dry in the sun, the area was burnt. Experienced elders decided when to set fire and monitored the plot to control the spread of fire. According to Forsyth and Walker (2008), controlled burning practices can systematically enrich both forest and fallow vegetation as stored nutrients are released and added to the soil resulting in increased biomass production, while fire also stimulates seed dispersal and controls disease and pest outbreaks. After being cultivated for a couple of years, fields were fallowed for a considerable time (5–30 years) before replanting or left to completely regenerate. It was not uncommon for a family to have many plots, some located far away from the home compound. Some plots were more intensively used, such as those in closer proximity

to homes, and some were abandoned for longer periods, creating a heterogeneous land cover composed of a complex mosaic of cultivated areas, primary forest, and secondary forest.

All agricultural activities were assigned their respective months and timed with moon phases in order to achieve optimal output (Sanches 2001). Rice was generally planted at the end of the dry season in November and harvested in May by a collective effort (*puxirão*)[5] involving community members as well as relatives and friends from nearby areas (Silveira 2003). Beans were often planted together with maize, helping to fix nitrogen, and could be planted two or three times a year depending on the climatic conditions. As cultivated and wild varieties of manioc were planted close to each other in the small agricultural plots opened inside the natural vegetation, gene flow was maintained through hybridization contributing to augment diversity (McKey *et al.* 2010). Bitter varieties of manioc were generally preferred because of pest resistance and as they were not generally eaten by most animals, but they had to be processed into flour (Adams *et al.* 2013; Hanazaki *et al.* 2013). Sweet manioc plots were invaded particularly by ungulates such as collared peccaries, white-lipped peccaries, and deer (Prado *et al.* 2013), as well as rodents such as paca and agouti. Other cultivated fields and home gardens were also often visited by these animals in addition to lowland tapirs, armadillos, and a wide variety of birds. Hunting of such animals, typically a male activity, involving the use of rifles, traps, and dogs, was mainly practiced either to complement the diet or to protect home gardens and cultivated fields (Prado *et al.* 2013).

Mature forests were sporadically utilized to obtain hardwood for house construction and vines to make handicrafts and utilitarian objects such as baskets and sieves, and for roof thatching. Secondary vegetation close to the houses was used as firewood. It was generally a woman's task to collect forest products, including medicinal plants, and to plant home gardens, while men cut trees and worked in the agricultural fields. Both men and women were involved in processing of manioc and maize flour and production of sugar cane sweets. The inhabitants were mainly self-sustained and conducted little exchange of agricultural products with outsiders. If they produced excess food, they would sell crops and processed flour in Iporanga or Apiaí where there were storage facilities. The local markets provided other daily necessities such as kerosene and salt.

[5] Bombas inhabitants differentiate among various mutual-help organizations; *puxirão/mutirão*, *reunida*, *troca de dia*, and *camarada*. *Mutirão*, a newer word for *puxirão*, refers to a large-scale mutual-help organization, comprising group activities for clearing a forest patch, planting, weeding, and harvesting. *Reunida* is collective work for a collective end, like opening a new trail, or individual end like construction of a house. *Troca de dia* is when one person helps another one day in exchange for help another day. *Camarada* is when one person pays someone to help.

Pressures and Responses

The relatively stable way of life described above changed in response to four events: (1) the increased investment in the region in the 1930s–1970s, (2) the implementation of PETAR during the 1980s–1990s, (3) the process of construction of a *Quilombola* identity and access to social programs in the 2000s, and (4) the negotiation over land rights with forest authorities from 2010 to 2013. Below, I outline the chronology of changes in social organization, traditional practices, and resource use in Bombas, showing that economic and political incentives have greatly influenced community dynamics and subsistence activities.

Increased Investment in the Region in the1930s–1970s

After more than a century of economic stagnation in the Ribeira Valley, exploration of mineral deposits was presented as a remedy to the region's "backwardness," and governmental investment was initiated at the end of the 1930s. The first important investment was the opening of the Lead and Silver Company in Apiaí and the mining companies Furnas and Lageado in close proximity to Bombas (Silveira 2003). The lack of roads made Iporanga isolated and mining activities difficult and costly, spurring the construction of a road between Iporanga and Apiaí in 1937. Road access facilitated entry of large cattle farmers and the opening of a factory for processing of *juçara* palm hearts (*Euterpe edulis* Mart.) (Figueiredo 2000). Bombas' population grew as the additional economic alternatives attracted outside workers and their relatives. Many inhabitants turned to the extraction of palm hearts as a main source of income, but household-level agriculture continued to be their main activity for subsistence (Silveira 2001).

Development projects were promoted further in the 1960s in an attempt to occupy abandoned space to counteract rebellions such as the Lamarca guerrilla group[6], which was present in the Ribeira Valley between 1968 and 1971. A series of infrastructure projects were initiated such as the construction of state road SP-165 linking Iporanga to the municipality of Eldorado, the construction of a bridge over the Ribeira de Iguape River, the provision of electricity and telephone services in Iporanga, and the establishment of a number of regional agencies linked with the political development of the State (Figueiredo 2000). These government projects attracted more people to the region and also to Bombas. According to Bombas inhabitants, more than 80 families used to live in Bombas in the 1970s, resulting in a large extension

[6] Carlos Lamarca was one of the leaders of the armed opposition to the military dictatorship in Brazil.

of cultivated areas. Agricultural plots were sizeable and could have many owners or only one owner who paid a daily fee for help in the field (*camarada*). Despite the intense cultivation, the length of fallow did not change. Community members remember that there used to be a great richness and abundance of animals and birds present in the territory at this time, explaining this bounty by highlighting the extensive availability of crops and fruits. Pig rearing was the main income generating activity, but some inhabitants also raised goats, providing milk and cheese. Others tried for a short while to raise cattle but ceased due to problems of soil compaction and pasture recovery. With increased income, inhabitants could buy cooking oil and dried meat in addition to salt and kerosene.

Collective work was regular and as alliances were comprehensive, it was not uncommon for more than 80 people to participate in *mutirões*, including friends and relatives from nearby communities and towns. *Mutirões* were usually held at the end of every month and a party was organized by the owner of the land plot at the end of the day with large bonfires, accordion and guitar music and dancing and singing until dawn. Elders relate that a domestic animal was slaughtered for the occasion, and manioc flour pancakes (biju) and the local sugarcane spirit (cachaça) were served. The parties were also opportunities for romantic encounters that later resulted in marriage. Other social activities included Catholic masses and celebrations, and priests would visit the community once a month. The celebrations of Bandeira do Divino, Nossa Senhora Aparecida, Santo Antônio, Recommendação das Almas, and the practices of Romario de São Gonçalo and Mesada dos Anjos served to unite the community and reinforce social bonds between community members (Andrade and Tatto 2013).

Implementation of PETAR in the 1980s–1990s

As a reaction to the extractive activities taking place in Iporanga between the 1930s and 1970s, environmental conservation became a serious concern. Since the Ribeira Valley holds the largest remaining fragment of Brazil's Atlantic Forest, consisting of 2.1 million hectares, international and national environmental organizations regard Ribeira as a source of natural richness in biodiversity (Ferreira 2004; Santos and Tatto 2008). Furthermore, members of the Brazilian Society of Speleologists and technicians from Brazil's Geographical and Geological Institute discovered numerous caves that they wanted to preserve in Iporanga and Apiaí, including areas inside and adjacent to the territory of Bombas (Guimarães and LeBret 1966). Among these was the Bombas cave, home to the threatened endemic blind catfish species *Pimelodella kronei* which is one of the environmentalists' main targets for conservation - and the official logo of PETAR. Based on the speleologists' findings and suggestions from the Superintendence of Coastal São Paulo, a large number of protected areas was created and implemented in the Ribeira Valley, where PETAR served as a pilot project. In this period, about 70 % of Iporanga municipality was under some form of environmental protection (Figueiredo 2000; Castro *et al.* 2006). Because of conservation policies, palm heart factories were shut down in the mid–1980s and ecotourism targeting urban tourists became the principal focus of governmental actions, with little input from local inhabitants and municipal authorities. Although tourism was developed in the nearby settlement of Serra, it was not in Bombas due to the inaccessibility of this community (Silveira 2007).

News about the implementation of PETAR arrived in Bombas in a confusing way and perplexed its residents. No government official or park staff ever visited the community to inform inhabitants about the creation and implementation of the park. With new park regulations in place, the practice of shifting cultivation and its associated use of fire, planting of home gardens, animal husbandry, hunting, fishing, extraction of palm hearts and other forest products, and human occupation, all became illegal (Andrade and Tatto 2013). Park authorities and environmental police started to appear in the territory to enforce environmental laws, threatening the inhabitants with eviction and charging fines. Inhabitants were sometimes arrested and handcuffed and some started accusing other inhabitants of being involved in illegal extraction of forest resources. This increased tension among community members, which led to a higher incidence of internal conflicts. However, because of its remote location, Bombas was not the target of rigorous monitoring and most surveillance took place near the Bombas cave. Although few Bombas residents were fined for environmental crimes, the fear of the "environment," as the inhabitants refer to forest authorities, became entrenched in the community (Silveira 2001). Community residents started to suspect any new outsider that came to the area, with fear of having their agricultural plots reported and their rifles confiscated.

The implementation of PETAR left Bombas inhabitants in a confused situation and they were hesitant to engage in traditional agricultural activities. The practice of large collective work efforts like the *mutirão* was avoided in order to not draw attention from park guards and environmental police. However, as Bombas inhabitants had no other options, they continued most resource use practices in more hidden areas with lower visibility and where access of forest authorities became more difficult. This meant that agricultural fields were opened further away from trails and houses and in steeper areas that had previously been avoided. Some steep areas in Bombas are still dominated by ferns, evidence that unsuitable areas were cultivated and have not yet recovered. The situation worsened when some Bombas inhabitants were contracted by external social actors to extract palm hearts. Without other income opportunities, and with abundant populations of *juçara* palms in the territory, the extraction was a way for the inhabitants to make a living. Also, many people from the outside entered the territory to extract palm hearts and young *juçara* palms started to be cut before reaching a reproductive stage, which takes 10 years (Silveira 2001).

According to Silveira (2003), this continued until the mid–1990s by which time adult *juçara* palms were almost depleted.

Even though inhabitants were not physically removed from the territory, the threats of forced resettlement and the lack of economic opportunities in the community resulted in many leaving in search of a better life. A large number of inhabitants emigrated to work in tomato plantations in the Upper Ribeira and Sorocaba. Some went to work in sugar cane, pine or eucalyptus plantations, others moved to urban areas of the municipalities of Iporanga, Apiaí, or Itaoca or even further away to Guaraí, Cajaíba, Itu, São Paulo, and Campinas. The inhabitants who did not move, or those who returned because of inadequate living conditions in the outside world, faced new challenges. Few people were left in the community and the low population number made networks of mutual help difficult, resulting in *reunidas* becoming more frequent than *mutirões*. *Reunidas* could be organized any day of the week and involved fewer people and no party at the end of the day. The number and size of agricultural plots and crop rotation decreased, increasing the fallow period. Many elders left and, over time, died resulting in the loss of traditional knowledge about animals and plants, resource utilization and taboos, and making of sweets. The traditional technologies for processing manioc and maize flour also came to an end, leading to the abandonment of the bitter varieties of manioc. The reduced engagement in traditional agricultural activities increased the need for purchasing goods previously produced by local inhabitants such as coffee, soap, sugar cane sweets, and manioc and maize flour. Bombas residents began to depend more on these items, but their purchasing power remained low.

Construction of a *Quilombola* Identity and Access to Social Programs in the 2000s

With time, Bombas inhabitants came to understand that if they continued hiding their natural resource use practices, they would not manage to cover their subsistence needs and the community would cease to exist. New efforts to plant more were therefore initiated and the number of agricultural plots increased. Simultaneously, the inhabitants started another strategy: to claim territorial rights based on their ethnic identity as *Quilombola*. Living in one of the most isolated areas in the region, Bombas' inhabitants had been marginal to the discussions about *Quilombos*' land rights that had taken place since the 1990s in other Afro- descendant communities in the Valley (Silveira 2007). The communities along the Ribeira de Iguape River initiated recognition processes in the beginning of the 1990s as a strategy against the construction of a series of planned hydropower dams. The mobilization of *Quilombola* communities culminated in the establishment of a social-environmental movement of people threatened by dams (Movimento dos ameaçados por barragens - MOAB) with support from the Catholic Church (Commisão Pastoral da Terra). Bombas inhabitants strongly engaged with the Catholic Church were the first to raise the issue of *Quilombo*. Residents began to understand that if the community was recognized as *Quilombo*, their historical territory could cease to be encroached by a protected area, or alternatively be reclassified into a sustainable use area permitting human residence and activity. Park borders had already been adjusted in a number of other *Quilombola* communities in the region such as Ivaporunduva, São Pedro, Maria Rosa, Pilões, and Pedro Cubas, which had been partially inserted in the Intervales State Park (Oliveira Jr *et al.* 2000). These were later reclassified as sustainable use areas, making them part of the Mosaic of Jacupiranga. In 2002, the community of Bombas entered a request for recognition as *Quilombo* to the Land Institute of São Paulo, hoping not only for recognition, but also for the withdrawal of the Park and effective action from the State to improve their living conditions. The community formally organized and registered the Association of Remnants of the *Quilombo* Bombas in 2004.

After becoming socio-politically organized, Bombas inhabitants began to acquire key documents such as birth certificates and identity cards, permitting access to already established governmental social programs. Disabled and elderly people began to receive disability and retirement pensions and started to financially support their families, changing social relations in Bombas. During the Labor Party administration (2003–2013), various programs to fight poverty, hunger, and food insecurity were implemented in Brazil. Bombas residents with children started to receive family allowances (bolsa familia) if sending their children to school. In 2004, the government started to distribute food packages (cesta básica) to Bombas residents, containing items such as rice, beans, maize, flour, sugar, coffee, pasta, and cooking oil, many items traditionally cultivated and processed in the community, thus discouraging engagement in traditional agricultural practices. Fewer agricultural plots were cleared and were frequently situated closer to houses due to time restrictions, given the reduced labor force. Bombas residents no longer planted as much rice, manioc, and other crops as they used to, leading to the abandonment of some varieties and reduced agro-biodiversity. Large-scale collective work arrangements such as *mutirões* and *reunidas* became rare and day-labor exchange (*troca de dia*) came to be the most common form of reciprocal help. Religious celebrations remained the main gathering events in the community (Santos 2010). However, an increasing number of people converted from Catholicism to Pentecostal Evangelical sects, decreasing participation in Catholic celebrations and further weakening social cohesion.

Negotiation Over Land Rights in 2010–2013

After the completion of the Technical and Scientific Report by the Land Institute of São Paulo (Silveira 2003), based on an

anthropological study, the *Quilombola* recognition process was halted by São Paulo Environmental Office which demanded environmental studies of Bombas. The Forest Foundation was charged with conducting these studies, but due to their historically poor relationship with forest authorities, Bombas inhabitants denied researchers entry to the territory until they had been recognized as a *Quilombo*. According to forest authorities, recognition could only be given after environmental studies had been conducted. This deadlock lasted until PETAR started preparing its Management Plan, which involved studying the entire Park, including Bombas. The socio-environmental NGO Instituto Socioambiental (ISA) entered as a mediator in the negotiations between the *Quilombola* association of Bombas, the Forest Foundation, and the Land Institute of São Paulo, resulting in the signing of a Memorandum of Intention and Work Plan in 2010. *Quilombola* leaders from other communities and Catholic Sisters engaged in EEACONE, the legal formalized entity of the anti-dam movement, supported Bombas by sharing experiences and giving legal advice. The Forest Foundation contracted a research group from the Agricultural University of São Paulo (ESALQ) to carry out the studies. After concluding the research report, a proposal of territory was presented by the forest authorities, excluding the area of Córrego Grande. At the time of writing, the Bombas *Quilombola* association had decided to accept this proposal on the conditions that it would be legally recognized, that PETAR's boundary overlapping Bombas territory would be moved, and that road access would be provided by the State.

At the beginning of this study in 2010, *camaradas* were the most common form of labor organization, whereby a resident remunerates another at the rate of US$ 12 per person per day if s/he encounters difficulties in reciprocating help. This is rather expensive for unsalaried peasants so only individuals receiving retirement or disability allowances could afford it. Twelve families lived in the community at this point, but by 2012 17 families were resident, showing a positive population trend. In April 2013, new plank houses had been built for family members planning to return to Bombas and some residents had replaced their wood and clay houses with plank houses. More time and effort were devoted to community projects, such as the clearing of a soccer field and there was discussion of similarly cleaning the paths. These activities encouraged the return of former residents. A new arrangement of shared agricultural plots was instituted, dividing the work load and the harvest. In this way, social bonds were strengthened and fewer areas needed to be cleared. At this stage residents kept only chickens, ducks, and turkeys rather than pigs, goats, or cows.

Dynamic social-Ecological Changes in Bombas

Land Cover Changes

Historical changes in land use and forest patterns in Bombas were analyzed by classifying and comparing land cover of an aerial photo from 1962 with satellite images from 1990, 1999, and 2010 (Table 1, Fig. 2a–d). Despite a considerable increase in 1999, which fell again in 2010, the average size of agricultural plots (home gardens, cultivated areas, and fallow) steadily decreased throughout these periods. Residents explained the large size and number of agricultural plots in 1962 (Fig. 2a) as a consequence of high population density and the active involvement in agricultural activities with extensive collective work. This changed after the implementation of PETAR when agricultural practices were increasingly hidden as a response to the enforcement of conservation policies and laws (Fig. 2b). Since this resulted in insufficient food production, many small plots were reopened in 1999 (Fig. 2c). The receiving of state transfer payments and food packages and the sharing of plots and harvest in 2010 once again reduced the number of plots (Fig. 2d). Overall, there has been a reduction of agricultural activities in Bombas accompanied by a general increase in regenerating forest and forest (Fig. 3).

The literature on shifting cultivation in tropical rainforests indicates that curtailment of agriculture can lead either to forest transition (Rudel 2012) or to agricultural intensification (Adams *et al.* 2013). In both cases, the supression of small-scale disturbances at lower levels, such as small fires, has been shown to result in lower biodiversity and structural complexity. Fire management that allows a mosaic of cultivated areas, secondary forest, and primary forest to develop has been shown to contribute to more diverse ecosystems (Russel 1997; Porro

Table 1 Land cover in hectares and percent in the Bombas territory across four time periods (1962, 1990, 1999, and 2010)

Land use category	1962		1990		1999		2010	
	ha	%	ha	%	ha	%	ha	%
Agricultural activities	631.68	19	200.80	6	352.30	11	211.19	6
Forest in regeneration	341.72	11	416.38	13	356.95	11	473.39	15
Forest	2256.13	70	2612.36	81	2520.30	78	2544.95	79
TOTAL	3229.54	100	3229.54	100	3229.54	100	3229.54	100

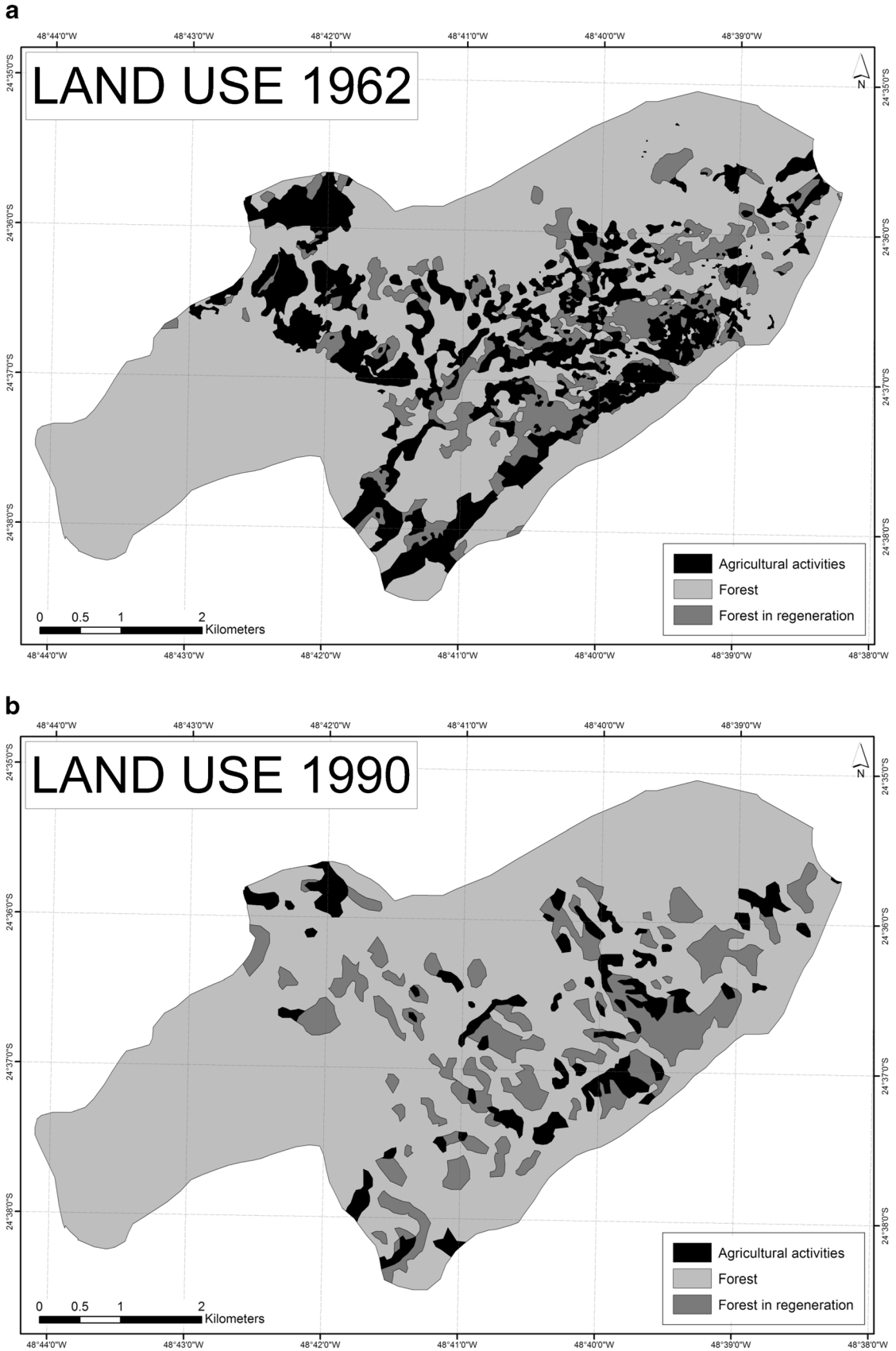


Fig. 2 **a**–**d**: Land cover in the Bombas territory showing areas under cultivation, areas in regeneration, and forested areas in four time periods (1962**a**, 1990**b**, 1999**c**, and 2010**d**)

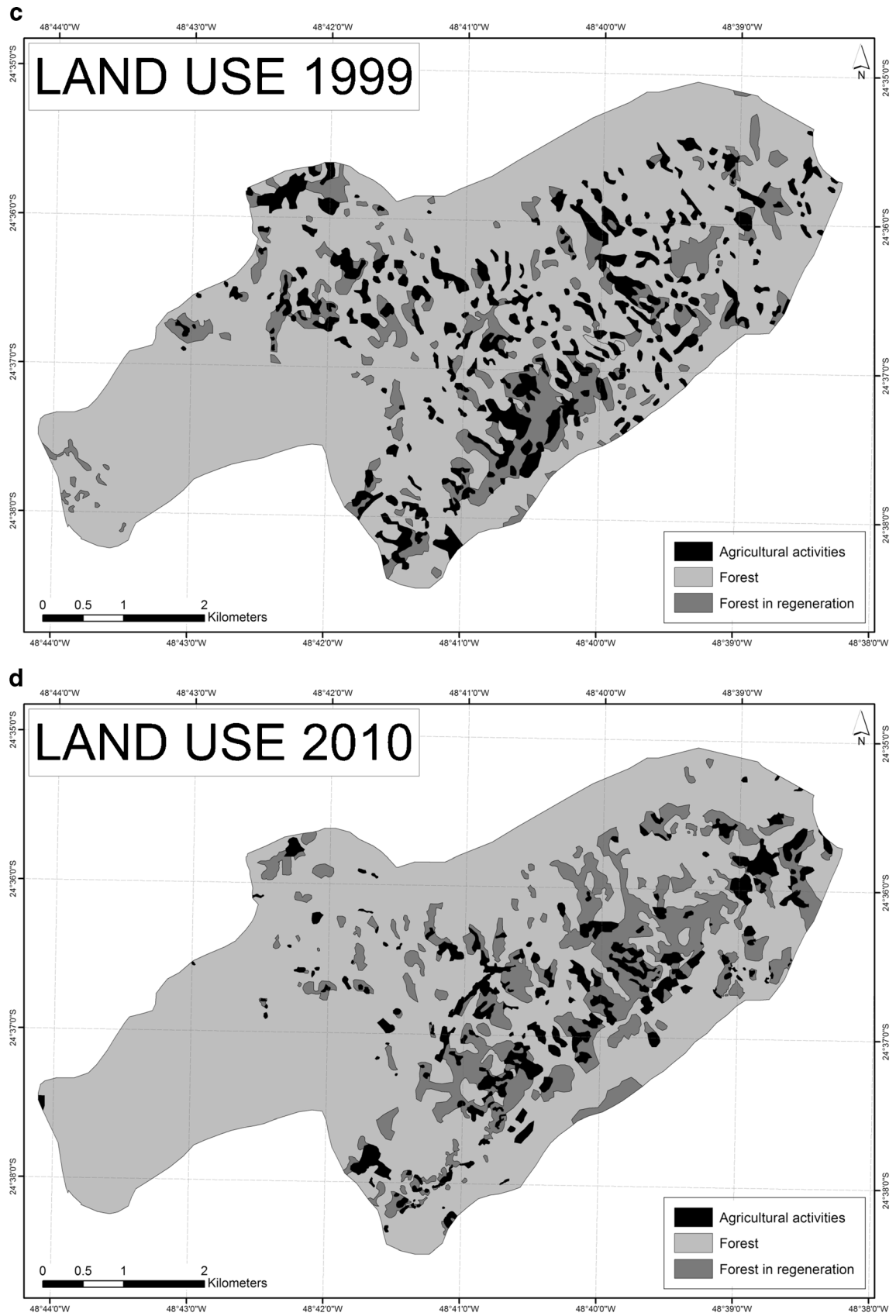


Fig. 2 (continued)

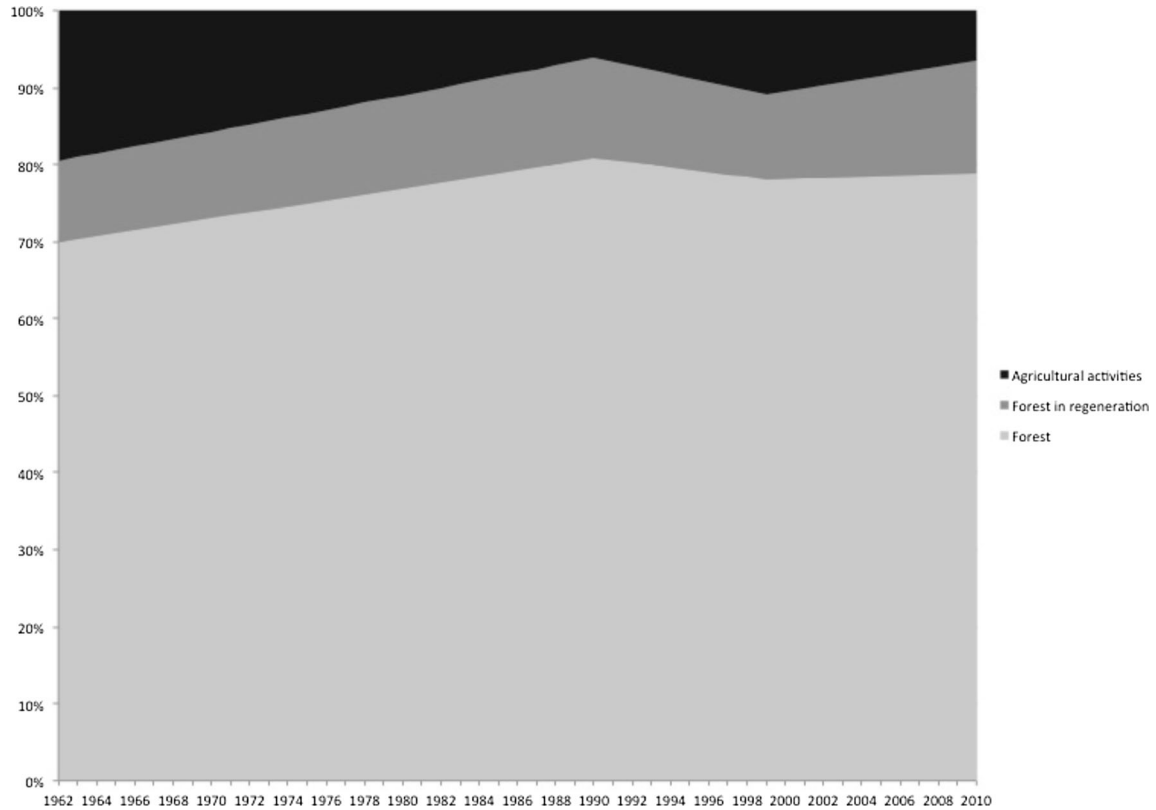


Fig. 3 Percentage of the different land cover categories in Bombas over time

2005; Pedroso *et al.* 2009; Beymer-Farris *et al.* 2012). This is because different forest ages support different plant species and interactions, and also permit different wildlife populations access to forest resources that vary in abundance across forest succession (Holling 1986; Rerkasem *et al.* 2009; Oudenhoven *et al.* 2011). The detected increase in regenerating forest and forest in Bombas suggests that the reduction of traditional shifting cultivation practices over the last decades has translated into an increase in total forested area and to forest transition as predicted by Rudel (2012). This is also supported by Fox *et al.* (2000) who argued that shifting cultivation is a temporary removal of trees, not of forest, properly speaking. Although the forest cover in Bombas has not been subject to any major change through time, the vegetation profile changed from a heterogeneous to a more homogenous forest.

Social-Ecological Adaptations

The social-ecological system of Bombas has gone through two linked and consecutive adaptive cycles of ecological, political, institutional, and social change over the last century (Fig. 4). The system has gone through breakdown leading to social- political reorganization, but rather than a repetition of a single adaptive cycle, new institutions, ideas, and policies have provided inputs to the beginning of a new cycle which again may produce a third future cycle, linking the system not only to its past but also to its future (Fig. 4). This depiction differs from most resilience literature that portrays the adaptive cycle as a more closed system (e.g., Gunderson and Holling 2002; Widlock *et al.* 2012).

The entry point of Fig. 4 refers to indigenous peoples' knowledge of local agro-ecological conditions, agricultural tools and practices, and characteristics of plants and animals that were passed on to the first settlers of Bombas, including through marriages, who in turn have passed it on to their children and grandchildren. Historical accounts highlight the sporadic use of the Bombas valley before the current settlement, so what is perceived as "virgin" forest might well have been utilized in historical times. At the time of community settlement in the 1910s, agricultural plots were left fallow for considerable periods, measures were taken to prevent the uncontrolled spread of fire, and cutting of trees on steep slopes and in riparian zones was avoided, demonstrating that inhabitants avoided unsustainable practices (1). Population numbers increased and agricultural practices intensified over the following 50 years (Fig. 2a). According to residents, population density, social networks, cultural practices, and agricultural activities reached a climax in the 1970s (2). They also described that the abundance of planted crops and fruits attracted large quantities of ungulates, rodents and birds, increasing the availability of game meat. The active use of shifting cultivation was believed to produce a patchier and more complex forest structure holding a wide range of habitat niches, possibly sustaining wild species diversity. Because of vigorous

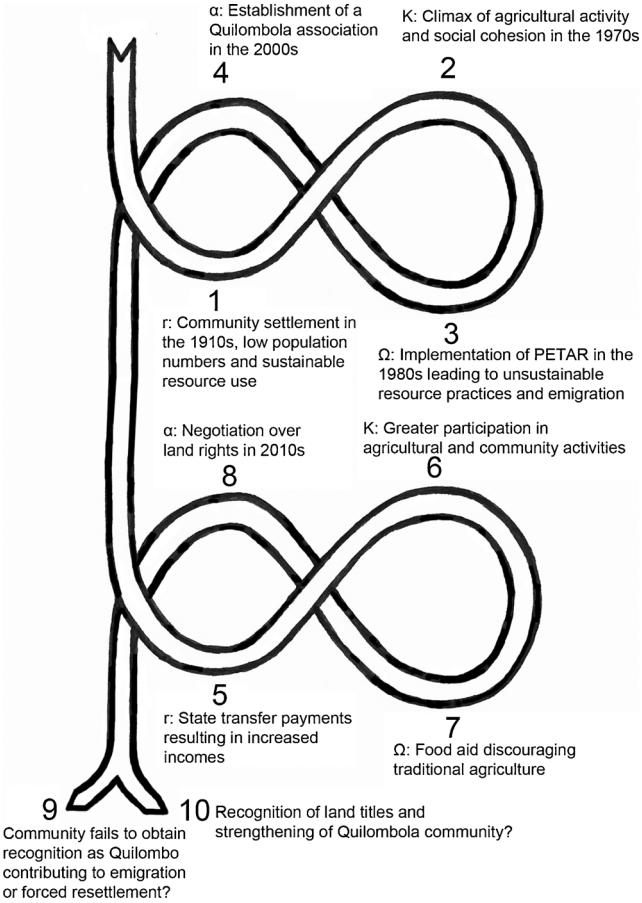


Fig. 4 Two linked and consecutive adaptive cycles of the social-ecological system of Bombas depicting ecological, political, institutional, and social changes over time

engagement in agricultural and other community activities, social cohesion was strong. The progression from (1) to (2) is associated with a slow increase in organization and connectedness over time and a gradual accumulation of natural, social, and human capital.

The implementation of PETAR in 1987 was experienced as a disturbance to this more or less stable social-ecological system (3). As a response to environmental restrictions and fear of being fined, unsuitable areas were cultivated in an attempt to conceal the activity, extraction of the threatened *juçara* palm increased, and crop production decreased resulting in fewer wild animals according to community members (Fig. 2b). Furthermore, increased skepticism among community members and distrust of outsiders, coupled with emigration, resulted in weakened social cohesion and loss of traditional practices and knowledge, and thereby loss of some crop varieties. On the other hand, this "release" stage or "creative destruction" gave room for innovation and renewal. The first adopted survival strategy was to cultivate a large number of smaller agricultural plots (Fig. 2c). The second response was to socially and politically reorganize the community in order to claim legal recognition as a *Quilombo*. The establishment of a *Quilombola* association in the 2000s was an attempt to legalize settlement and resource use and get access to social services and infrastructure (4).

The acquisition of key documents and receiving of state transfer payments resulted in increased income for some of the inhabitants, thus supporting fellow community members and paying for agricultural tasks (5). This initially contributed to increased participation in agricultural and community activities (6). Nevertheless, the distribution of food packages and cash transfer programs eventually discouraged traditional agricultural activities, increasing dependence on governmental assistance (7). As less food was produced, self-sufficiency diminished and the necessity for money increased (Fig. 2d). In 2013, it seemed that Bombas was poised for a new round of institutional renewal after entering negotiations over territory with the Forest Foundation to proceed with the *Quilombola* recognition process (8).

Based on the reports of Bombas residents and other engaged actors, some possible future scenarios in the back loop phase of the second adaptive cycle, from release to reorganization, may be delineated. One may be that the community fails to obtain official recognition as a *Quilombo* (9). This could result in forced resettlement of inhabitants, but more likely in a continual degradation of living conditions and emigration, ultimately leading to the abandonment of the Bombas settlement. Based on findings from the land cover analysis this would most likely result in regrowth of a forest that is more homogenous, leading to reduced ecological complexity and biological diversity, as indicated by Bombas residents and various scholars (e.g., Russel 1997; Pedroso Jr. *et al.* 2009; Oudenhoven *et al.* 2011; van Vliet *et al.* 2012; Robbins 2012; Beymer-Farris *et al.* 2012). For the community members, eviction from their historical territory could translate into their cultural identity being lost, as well as further loss of traditional practices and knowledge and degraded social relations. An alternative future scenario may be that the community is legally recognized as a *Quilombo*, obtaining a registered land title (10). Forest authorities could thereby move PETAR's borders excluding the territory of Bombas, or alternatively re-classify the territory as a sustainable use area permitting human residence and activity. The social-ecological system could then create room for reorganization, renewal, and novelty. Access to improved infrastructure could enable transport of agricultural products to local markets, children to undertake further studies in nearby towns, the sick and pregnant to receive health assistance, and facilitate the initiation of small businesses, ecotourism, and market-oriented agricultural production as is the case in other adjacent *Quilombola* communities (Adams *et al.* 2013). Legal recognition of land rights could thus encourage engagement in subsistence activities and also improve inhabitants' adaptive capacity in case of policy or economic changes.

Conclusion

Over the last century, Bombas has experienced two main cycles of change in social and ecological terms. By combining the adaptive cycle from resilience literature and political ecology, I have shown that the interaction among various development, environmental, and social policies and interventions has affected Bombas inhabitants' land use with cumulative effects on their livelihoods and the ecology of the Atlantic Forest. Development initiatives in the 1930s-1970s attracted people to Bombas who provided additional labor, but concomitantly led to more opportunities being established outside the territory and to emigration of inhabitants, particularly younger ones, in search of a better life. Environmental policies prohibiting human occupation and resource use later led to further emigration and subsequent reduced engagement in subsistence activities. Social policies in the 2000s resulted in higher income allowing inhabitants to buy products otherwise planted or processed in the community or to substitute traditional products with items provided by government food packages. The combined effects of these processes resulted in a reduction of shifting cultivation practices in Bombas and an increase in forest cover.

Based on informants' accounts and land cover maps, I argue that Bombas residents have played a significant role in shaping and maintaining the Atlantic Forest by past and present resource management practices. The mosaic of small agricultural plots, areas in regeneration, and forest areas promote niche diversity with favorable conditions for the diversification of wild and cultivated plant and animal communities. The empirically evident regrowth of Atlantic Forest followed by a decreased engagement in agricultural activities suggests that there have been no serious long-term negative impacts on the forest cover and that Bombas inhabitants have not exceeded the capacity of the soil to sustain both agricultural production and conservation. This is contrary to the dominant perception that traditional small-scale livelihoods are unproductive, destructive, and the cause of environmental degradation, a depiction that is utilized to legitimize the establishment of strictly protected areas (Pedroso *et al.* 2009; Robbins 2012; Beymer-Farris 2013). Oudenhoven *et al.* (2011) highlight that landscapes that have co-evolved with human activities often depend on their continuation to maintain the presence of certain species and ecosystem services. Based on this reasoning, biodiversity conservation could potentially benefit more from the inclusion and empowerment of Bombas residents and encouragement of their knowledge, practices, and culture characterizing the traditional agricultural system, than from their exclusion. I therefore conclude that legalization of settlement and subsistence activities are important not only for livelihood security and social cohesion of local inhabitants, but possibly also for biodiversity conservation. This should be taken into account in future negotiations and planning processes between the Bombas *Quilombola* association, the Forest Foundation, and the Land Institute of São Paulo concerning land rights to the territory of Bombas and natural resource management. If Bombas is recognized as a *Quilombo*, its residents will be in a favorable position to negotiate their future with the State for the first time in their history.

Acknowledgments I am indebted to the community members of Bombas for their hospitality, for accepting this research, and for the sharing of experiences and knowledge. Thanks are also extended to the rest of the participants in this research. I am grateful for the support I received from the socio-environmental NGO Instituto Socioambiental (ISA), particularly from Nilto Tatto, Anna Maria Andrade, and Maria Fernanda do Prado, and for the help with the analysis of the aerial photo and satellite images of Bombas from Lucia Chamlian Munari at the University of Hohenheim. I am especially thankful to Ian Bryceson at the Norwegian University of Life Sciences for his engagement in the analysis of the case and for revisions of earlier drafts. Three anonymous reviewers also provided useful comments. Last but not least, I appreciate inputs from Randi Kaarhus at the Norwegian University of Life Sciences. This research has been financed by a PhD grant from the university.

References

Adams, C., Munari, L. C., van Vliet, N., Murrieta, R. S. S., Piperata, B. A., Futemma, C., Pedroso Jr., N. N., Taqueda, C. S., Creverlaro, M. A., and Spressola-Prado, V. L. (2013). Diversifying incomes and losing landscape complexity in *Quilombola* shifting cultivation communities of the Atlantic rainforest (Brazil). Human Ecology 41(1): 119–137.

Andrade, A. M., and Tatto, N. (2013). Inventário cultural de *Quilombos* do Vale do Ribeira. Instituto Socioambiental, São Paulo.

Benjaminsen, T., and Bryceson, I. (2012). Conservation, green/blue grabbing and accumulation by dispossession in Tanzania. The Journal of Peasant Studies 39(2): 335–355.

Beymer-Farris, B. A., Bassett, T. J., and Bryceson, I. (2012). Promises and pitfalls of adaptive management in resilience thinking: the lens of political ecology. In Plieninger, T., and Bielingm, C. (eds.), Resilience and the cultural landscape. Cambridge University Press, Cambridge, pp. 283–299.

Beymer-Farris, B. A. (2013). Producing biodiversity in Tanzania's mangrove forests? A combined political ecology and ecological resilience approach to "sustainably utilized landscapes". In Brannstrom, C. and Vadjunec, J. M. (eds.). Land change, political ecology, and sustainability. Oxon, Routledge.

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

Candido, A. (1964). Os parceiros do Rio Bonito. José Olympio Editora, Rio de Janeiro.

Castro, D. F., Siqueira, A. D., Brondízio, E. S., and Ferreira, L. C. (2006). Use and misuse of the concepts of tradition and property rights in the conservation of natural resources in the Atlantic forest (Brazil). Ambiente & Sociedade 9(1): 23–39.

Rezende da Silva, S. (2008). Negros na Mata Atlântica, territórios *Quilombolas* e a conservação da natureza. Ph.D. dissertation, University of São Paulo, São Paulo, Brazil.

Davidson, D. J. (2010). The applicability of the concept of resilience to social systems: some sources of optimism and nagging doubts. Society Nat. Resources 23: 1135–1149.

de Blasis, P., and Robrahn, E. M. (1998). Investigações arqueológicas no Médio/Baixo Vale do Ribeira de Iguape, SP. Revista do MAE 8.

Diegues, A. C. (1998). The myth of untamed nature in the Brazilian rainforest. São Paulo, NUPAUB.

Diegues, A. C. (2007). O Vale do Ribeira e litoral de São Paulo: meio-ambiente, história e população. São Paulo, CENPEC.

Diegues, A. C. (2011). Povos e comunidades tradicionais em áreas de proteção integral no Brasil. Conflitos e direitos. São Paulo, NUPAUB.

Fairhead, J., and Leach, M. (2000). Webs of power: forest loss in Guinea. Seminar in New Delhi, pp. 44–53.

Ferreira, L. C. (2004). Dimensões humanas da biodiversidade: mudanças sociais e conflitos em torno de áreas protegidas no Vale do Ribeira, SP, Brasil. Ambiente & Sociedade 7(1): 47–66.

Figueiredo, L. A. V. (2000). "O meio ambiente prejudicou a gente…" - políticas públicas e representações sociais de preservação e desenvolvimento. Master dissertation, University of Campinas, Campinas, Brazil.

Forsyth, T., and Walker, A. (2008). Forest guardians, forest destroyers: the politics of environmental knowledge in northern Thailand. University of Washington Press, Seattle.

Fox, J., Truong, D. M., Rambo, T., Tuyen, N. P., Cuc, L. T., and Leiz, S. (2000). Shifting cultivation: a new old paradigm for managing tropical forests. BioScience 50(6): 521–528.

Fundação Florestal. (2010). Plano de manejo do Parque Estadual Turístico do Alto Ribeira (PETAR). Capítulo 9: Áreas e temas prioritários de manejo. São Paulo, FF.

Gomez-Pompa, A., and Kaus, A. (1992). Taming the wilderness myth. BioScience 42(4): 271–279.

Guimarães, J. E. P., and LeBret, M. (1966). Grutas calcárias- Estudos espeleológicos no Vale do Alto Ribeira. Secretaria da Agricultura, Instituto Geográfico e Geológico, São Paulo.

Gunderson, L., and Holling, C. S. (eds.) (2002). Panarchy: understanding transformations in human and natural systems. Washington DC, Island Press.

Hanazaki, N., Berkes, F., Seixas, C. S., and Peroni, N. (2013). Livelihood diversity, food security and resilience among the caiçara of coastal Brazil. Human Ecology 41: 153–164.

Holling, C. M. (1986). The resilience of terrestrial ecosystems: local surprise and global change. In Clark, W. C., and Munn, R. E. (eds.), Sustainable Development of the Biosphere. Cambridge University Press, Cambridge, pp. 292–317.

McKey, D., Elias, M., Pujol, B., and Duputie, A. (2010). The evolutionary ecology of clonally propagated domesticated plants. New Phytologist 186: 318–332.

Munari, L. C. (2009). Memória social e ecologia histórica: a agricultura de coivara das populações *Quilombolas* do Vale do Ribeira e sua relação com a formação da Mata Atlântica local. Master dissertation, University of São Paulo, São Paulo, Brazil.

Neumann, R. P. (2004). Nature-state-territory. Toward a critical theorization of conservation enclosures. In Peet, R., and Watts, M. (eds.), Liberation ecologies. Environment, development, social movements, 2nd ed. Routledge, London, pp. 195–217.

Oliveira Jr., A. N., Stucchi, D., Chagas, M. F., and Brasileiro, S. S. (2000). Comunidades negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria Rosa e Pilões. In Negros do Ribiera: reconhecimento étnico e conquista do território. 2nd edition. São Paulo, ITESP.

Oudenhoven, F. J. W., Mijatovic, D., and Eyzaguirre, P. B. (2011). Social-ecological indicators of resilience in agrarian and natural landscapes. Management of Environmental Quality: An International Journal 22(2): 154–173.

Pedroso Jr., N. N., Murrieta, R. S. S., Taqueda, C. S., Navazinas, N. D., Ruivo, A. P., Bernardo, D. V., and Neves, W. A. (2008). A casa e a roça: socioeconomia, demografia e agricultura em populações *Quilombolas* do Vale do Ribeira, São Paulo, Brasil. Ciências Humanas 3(2): 227–252.

Pedroso Jr., N. N., Adams, C., and Murrieta, R. S. S. (2009). Slash and-burn agriculture: a system in transformation. In Lopes, P., and Begossi, A. (eds.), Current trends in human ecology. Cambridge Scholars Press, Newcastle upon Tyne, pp. 12–34.

Penna-Firme, R. (2013). Political and event ecology: critiques and opportunities for collaboration. Journal of Political Ecology 20: 199–216.

Porro, R. (2005). Palms, pastures, and swidden fields: the grounded political ecology of "agro-extractive/shifting-cultivator peasants" in Maranhão, Brazil. Human Ecology 33(1): 17–56.

Prado, H. M., Murrieta, R. S. S., Adams, C., and Brondizio, E. S. (2013). Complementary viewpoints: scientific and local knowledge of ungulates in the Brazilian Atlantic Forest. Journal of Ethnobiology 33(2): 180–202.

Queiroz, R. S. (1983). Caipiras Negros no Vale do Ribeira: um estudo de antropologia econômica. Série Antropologia, FFLCH/USP.

Rapoport Center. (2008). Between the law and their land: afro-Brazilian *Quilombo* communities' struggle for land rights. Rapoport Center for Human Rights and Justice, University of Texas of Austin.

Rerkasem, K., Lawrence, D., Padoch, C., Schmidt-Vogt, D., Ziegler, A. D., and Bruun, T. B. (2009). Consequences of swidden transitions for crop and fallow biodiversity in southeast Asia. Human Ecology 37: 347–360.

Robbins, P. (2012). Political ecology: a critical introduction. Chichester, Wiley-Blackwell.

Rudel, T. K. (2012). The human ecology of regrowth in the tropics. Journal of Sustainable Forestry 31: 340–354.

Russel, E. W. B. (1997). History hidden in the landscape. People and land through time. Linking ecology and history. Yale University Press, New Haven, pp. 3–18.

Sanches, R. A. (2001). Caiçara communities of the southeastern coast of São Paulo State (Brazil): traditional activities and conservation policy of the Atlantic rain forest. Human Ecology Review 8(2): 52–64.

Santos, M. W. (2010). Saberes da terra: o lúdico em Bombas, uma comunidade *Quilombola* (estudo de caso etnográfico). Ph.D. dissertation, University of São Paulo, São Paulo, Brazil.

Santos, K. M. P., and Tatto, N. (eds.) (2008). Agenda socioambiental de comunidades *Quilombolas* do Vale do Ribeira. Instituto Socioambiental, São Paulo.

Schmitt, A., Turatti, M. C. M., and Carvalho, M. C. P. (2002). A atualização do conceito de *quilombo*: identidade e território nas definições teóricas. Ambiente & Sociedade 5(10): 1–8.

Seixas, C. S., and Berkes, F. (2003). Dynamics of social-ecological changes in a lagoon fishery in southern Brazil. In Berkes, F., Colding, J., and Folke, C. (eds.), Navigating social-ecological systems: building resilience for complexity and change. Cambridge University Press, New York, pp. 271–298.

Silveira, P. C. B. (2001). Povo da terra, terra do parque: presença humana e conservação de florestas no Parque Estadual Alto Ribeira, SP. Master dissertation, University of Campinas, Campinas, Brazil.

Silveira, P. C. B. (2003). Relatório técnico científico sobre os remanescentes da comunidade de *quilombo* de Bombas Iporanga-São Paulo. São Paulo, ITESP (unpublished).

Silveira, P. C. B. (2007). Conflitos socio-ambientais e mobilização de identidade: um estudo na Mata Atlântica. 31 Encontro da ANPOCS de 22 a 26 de outubro. Caxambu, MG.

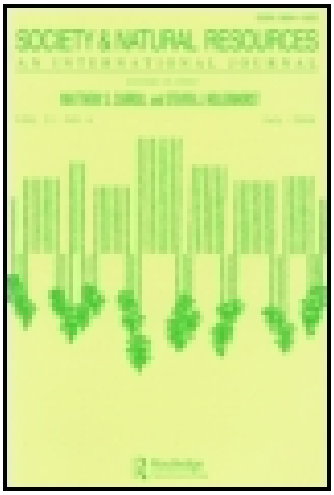
Stevens, S., and de Lacy, T. (1997). Conservation through cultural survival: indigenous peoples and protected areas. Island Press, Washington DC.

Turner, B. L. (2008). A skeptic's comments on resilience and alternative approaches to coupled human-environment systems. In Leach, M. E. (ed.), Re-framing resilience: a Symposium Report. STEPS Centre, Institute for Development Studies, Brighton, pp. 1–18.

van Vliet, N., Mertz, O., Heinimann, A., Langanke, T., Pascual, U., Schmook, B., Adams, C., Schmidt-Vogt, D., Messerli, P., Leisz, S., Castella, J.-C., Jørgensen, L., Birch-Thomsen, T., Hett, C., Bruun, T. B., Ickowitz, A., Chi Vu, K., Yasuyuki, K., Fox, J., Padoch, C., Dressler, W. D., and Ziegler, A. D. (2012). Trends, drivers and impacts of changes in swidden cultivation in tropical forest-agriculture frontiers: a global assessment. Global Environmental Change 22: 418–429.

Widlock, T., Aufgebauer, A., Bradtmöller, M., Dikau, R., Hoffmann, T., Kretschmer, I., Panagiotopoulos, K., Pastoors, A., Peters, R., Schäbitz, F., Schlummer, M., Solich, M., Wagner, B., Weniger, G., and Zimmermann, A. (2012). Towards a theoretical framework for analyzing integrated socio-environmental systems. Quaternary International 274: 259–272.

Zimmerer, K. S. (2000). The reworking of conservation geographies: nonequilibrium landscapes and nature society hybrids. Annals of the Association of American Geographers 90: 356–69.



Society & Natural Resources: An International Journal

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/usnr20

Justice in an Unequal Relationship? Negotiations Between the Quilombo Bombas and the Upper Ribeira State Touristic Park, Brazil

Kjersti Thorkildsen[a]

[a] Department of International Environment and Development Studies/Noragric, Norwegian University of Life Sciences, Aas, Norway

Published online: 04 Jun 2015.

Society & Natural Resources, 0:1–16
Copyright © 2015 Taylor & Francis Group, LLC
ISSN: 0894-1920 print/1521-0723 online
DOI: 10.1080/08941920.2015.1024809

Routledge
Taylor & Francis Group

Justice in an Unequal Relationship? Negotiations Between the *Quilombo* Bombas and the Upper Ribeira State Touristic Park, Brazil

KJERSTI THORKILDSEN

Department of International Environment and Development Studies/ Noragric, Norwegian University of Life Sciences, Aas, Norway

In Brazil, the implementation of protected areas has often caused impoverishment and injustice to forest-dwelling peoples. With the launching of the re-democratic 1988 Constitution, numerous claims for access to resources, recognition of ethnic identities, and participation in environmental decision-making have been made by traditional peoples. Using an environmental justice approach, this article analyzes the spaces for and processes of negotiation over strictly protected areas through an examination of the land claim of the Afro-Brazilian quilombola *community Bombas located inside the Upper Ribeira State Touristic Park, São Paulo. The article argues that exclusionary practices and discourses were used by the Brazilian state apparatus, hampering the recognition of a* quilombola *identity, land rights, and access to infrastructure development. The negotiation meetings served as a forum for challenging the power imbalances, but did not open up space for meaningful participation where quilombolas' voice did significantly influence the agenda and key decisions.*

Keywords *quilombola* communities, protected areas, negotiation, environmental justice, Brazil

Dispossession of forest-dwelling peoples upon establishment of protected areas is a worldwide phenomenon inspired by the creation of the Yellowstone National Park in 1872 in the United States (Brockington et al. 2008). This "fortress" approach to conservation, separating humans from nature, is sustained by environmental discourses portraying human activities as "destructive" and inhabitants as "invaders" (Forsyth and Walker 2008; Beymer-Farris and Bassett 2012; West et al. 2006). Such an ahistorical representation of landscapes, which Diegues (1998) calls the "myth of untamed nature," does not acknowledge that areas of high wildlife and botanical value have often coevolved with human activities and depend on their continuation. In Brazil, the largest number of protected areas devoid of human agency was created during the military dictatorship (1964–1985),[1] causing impoverishment and

Received 4 March 2014; accepted 4 November 2014.

Address correspondence to Kjersti Thorkildsen, Department of International Environment and Development Studies/Noragric, Norwegian University of Life Sciences, PO Box 5003, 1432 Aas, Norway. E-mail: kjersti.thorkildsen@nmbu.no

Color versions of one or more of the figures in the article can be found online at www.tandfonline.com/usnr.

injustice to indigenous peoples, Afro-Brazilian *quilombolas*,[2] and other park inhabitants who had to bear the burdens of restricted access to and use of natural resources and loss of customary rights to land (Barreto Filho 2004; Ferreira 2004; Diegues 2011).

In the context of democratic transition in the mid-1980s, Brazilian nongovernmental organizations (NGOs) committed to social and human rights issues began to lobby for the interests of peoples inhabiting protected areas, and the affected people commenced a more active role by setting up their own organizations (Esterci and Fernandez 2009). Their efforts culminated in a more democratic constitution being launched in 1988, valuing both biological and cultural diversity. In addition to including a chapter on environmental conservation (chapter VI), the constitution recognized the multiethnic, multicultural, and multilingual configurations of the country and ensured collective land rights to indigenous and *quilombola*[3] populations, thereby prohibiting eviction from their ancestral lands upon creation of protected areas (Santilli 2010). Another important step toward more socially and environmentally just conservation practices was the launching of the National System of Conservation Units (SNUC) law in 2000, providing a framework for establishment of sustainable-use areas permitting settlements and low impact resource use by traditional populations[4] (Medeiros 2006; Penna-Firme and Brodizio 2007). Moreover, SNUC secures participation of local populations in the establishment, implementation, and management of protected areas. In spite of the constitutional status of indigenous and *quilombo* land rights and more inclusive environmental decision-making procedures, this article argues that social exclusion processes are still being played out by the Brazilian state apparatus, hampering recognition of ethnic identities and meaningful participation. Here, I use an environmental justice approach to explore the spaces for and processes of negotiation over strictly protected areas through an examination of the land claim of the *quilombo* Bombas overlapped by the Upper Ribeira State Touristic Park (PETAR), São Paulo.

Environmental Justice as an Investigative Approach

The concept of environmental justice originated in the civil rights movement in the 1960s and the environmental racism debates in the 1970s in the United States, which challenged the inequitable access to resources and disproportionate exposure to hazardous pollution for particularly black and poor communities (e.g. Lazarus 1993, Bullard and Wright 1990). The initial focus of environmental justice movements and academics on the distributional dimension of justice has more recently been criticized for having neglected the relevance of the social structure and institutional context in distributional patterns. As a response to this shortcoming, environmental justice has been extended materially, spatially, and politically to produce a far more dynamic frame for activism, research, and policy (Zerner 2000; Schlosberg 2007; Schroeder et al. 2008; Sundberg 2008; Walker 2009). Iris Young (1990), and Nancy Fraser (1998) were two of the first scholars to call for more attention to the fundamental underlying processes (and their associated power structures, social relations, institutional configurations, and discourses) that generate *maldistribution*, to both understand and remedy inequity. Young criticizes the way distributive theories of justice take goods as static, rather than as results of different social and institutional relations. She contends that a part of the reason for unfair distribution is a lack of recognition of group difference in the social and political spheres, demonstrated by various forms of insults, degradation, and devaluation.

Likewise, Fraser argues that recognition of cultural differences is legitimate and necessary to challenge inequity. This is particularly relevant to indigenous and other traditional communities demanding recognition of collective identities and protection of their culture, livelihoods, and territorial rights.

Both Young and Fraser further highlight the direct link between a lack of recognition and participation in the political and institutional order. If you are not recognized, you do not participate, and you do not have influence on decision-making on distribution of social and environmental goods (Young 1990; Fraser 1998). Environmental justice does therefore not only require an understanding of unjust distribution patterns and lack of recognition but also how these are intertwined in political and social processes (Schlosberg 2007). When ''patterns of disrespect and disesteem are institutionalized'' (Fraser 1998) participatory inequities or exclusions appear in institutions and decision-making processes (Urkidi and Walter 2011). Based on this, Schlosberg (2007) sets forth that environmental justice as an investigative approach should focus on the political process to address both the inequitable distribution of social and environmental goods and the conditions undermining recognition and participation.

Building on this literature, this article analyzes the multifaceted dimensions of environmental justice in the context of a negotiation process over a human-inhabited part of a protected area. Attention to recognition of the ethnic identity of *quilombola*, alongside distributional and participatory issues, is crucial to examine the Bombas residents' struggles over rights and resources inside PETAR. In Brazil, social class and color are critical variables in organizing inequality whereby lack of access to education, health care, economic incentives, and land resources is most severe among rural poor black communities (Hooker 2005; Rapoport 2008). Since access to land rights and cultural recognition cannot be attained on the basis of social position and marginal status alone, many marginalized black communities have come to use the ethnic identity of *quilombola* over class, as it has opened strategic political spaces to negotiate with the state (Penna-Firme and Brodizio 2007). By drawing attention to the historical roots of *quilombos* in the Ribeira Valley and past and present feedbacks between the Bombas community and the state, I intend to show how the articulation of the ethnic identity of *quilombola* is a process that is intimately woven into historical, political, and environmental processes (Sundberg 2008). Further emphasis on historical marginalization, together with contemporary social relations, institutional configurations, and discourses, provides a critical context for understanding why Bombas inhabitants were prevented from fully participating in decisions affecting their lives (Young 1990; Harvey 1996; Fraser 1998).

Methods

The empirical data presented and analyzed in this article are based on ethnographic fieldwork in the *quilombo* Bombas, located in the municipality of Iporanga in the state of São Paulo. Participant observation with registration in a field diary took place between the fall of 2010 and spring of 2011. Moreover, 30 open-ended in-depth interviews were conducted with different key informants such as Bombas inhabitants, former inhabitants, leaders from other *quilombos* in the municipalities of Iporanga and Eldorado (which hold the largest concentration of *quilombos* in the state of São Paul), government officials, politicians, lawyers, researchers,

and representatives from NGOs, social movements, and religious orders[5] (2010–2013). All the interviews were held in Portuguese, recorded, and transcribed. Data was also acquired from attendance in 12 community meetings and meetings between Bombas inhabitants, state officials, researchers, and representatives from civil society organizations dealing specifically with the negotiation over rights to the Bombas territory between 2010 and 2013. This provided insight into the actual behaviors, actions, and interactions of the different actors. Minutes from meetings, in addition to formal and informal conversations with involved actors, have further contributed to unveil how exclusionary patterns and structures operated in the negotiation process between Bombas and PETAR.

The Community of Bombas and Its First Encounter with the State

Bombas is located in the Upper Ribeira, approximately 10 km from the town of Iporanga, in a rugged and karst landscape covered by dense Atlantic Forest. It is the most geograpically isolated *quilombo* in the state of São Paulo and one of the most socially, economically, and politically excluded (Santos and Tatto 2008). The community consists of 17 households engaged in small-scale subsistence activities such as shifting cultivation agriculture, planting of home gardens, animal rearing, hunting, fishing, and gathering of forest products. Contemporary Bombas inhabitants stem from Afro-descendants from other communities today officially recognized as *quilombo*, such as Nhunguara, Praia Grande, and Porto Velho in the state of São Paulo and João Surá in the state of Paraná (Andrade and Tatto 2013). According to Silveira (2003), community formation of Bombas took place in the 1910s by former slaves and descendants of slaves that had been imported to the Ribeira Valley from different African countries by Portuguese colonizers in the 16th century, principally to work in gold mines. Many slaves were liberated or abandoned with the end of mining activities and subsequent large economic cycles in the 18th century (Oliveira Jr. et al. 2000). Nevertheless, black people were seen as inferior and incapable of taking on the rights and responsibilities of citizenship until the abolition of slavery in 1888. Cunha (1987) argues that the difficulty of freed slaves obtaining social space was basically due to blacks and slaves being portrayed as coexisting categories. Due to discrimination and racial prejudice, many former slaves established communities in remote areas with difficult access. Today, 88 *quilombola* communities live in the Ribeira Valley (Andrade and Tatto 2013).

About the time of community settlement of Bombas, a large number of limestone caves hosting a rich biodiversity were discovered in the Upper Ribeira, leading to the endorsement of nature conservation (Krone 1950). This was further reinforced by international and national environmental organizations' desire to protect the largest remnant of Brazilian Atlantic Forest of 2.1 million ha, located in the Ribeira Valley, accounting for 21% of the national total[6] (Santos and Tatto 2008). In 1958, the Upper Riberia State Park (PEAR) with 357,000 ha was established as the first protected area in São Paulo,[7] prohibiting human occupation and use, including all the land-based livelihood activities Bombas residents were engaged in (Karmann and Ferrari 2002; Marinho and Furlan 2007). Two years later, the protected area was renamed the Upper Ribeira State Touristic Park (PETAR) to allow for tourism.[8] The entire historical territory of Bombas was incorporated in PETAR due to the high Atlantic Forest cover, abundant headwaters, and numerous

limestone caves hosting the endemic blind albino catfish *Pimelodella kronei*, which is one of the main targets for conservation and the logo of the park (Thorkildsen 2014).

Despite the establishment of the strictly protected area of PETAR, expropriation and relocation measures of park inhabitants were not carried out due to the lack of funds, leading to the creation of a so-called "paper park." Only in 1987 did forest authorities start to implement PETAR, deploying authoritarian and coercive means (Sundberg 2008). Park guards demarcated the boundaries and the environmental police enforced park regulations, disregarding the customary rules already in place (Ostrom 2011). No state official had ever been to Bombas to inform the inhabitants about the creation of PETAR before park guards and the police showed up, giving fines for environmental crimes. The inhabitants were also frequently encouraged to leave their territory, being told that they were illegally occupying the area and that it was a dangerous place for them to live due to the karst geological formations that could collapse any time. The Bombas forest, however, was not the focus of environmental surveillance, but inhabitants started to fear the "environment," as they refer to forest authorities, being scared that their agricultural plots would be reported or their rifles seized (Thorkildsen 2014). Any outsider visiting the community came to be seen as a potential enforcer of environmental laws, making people suspicious whenever someone came to the area.

Resistance to PETAR was not so much expressed by confrontation but rather by "everyday forms of resistance" (Scott 1985). Bombas residents attempted to evade rather than obey park regulations, continuing most subsistence practices in hidden areas with lower visibility (Ostrom 2011). Still, the threats of removal, the fear of engaging in traditional subsistence activities, and the lack of alternative income-generating activities in the community resulted in many inhabitants leaving in search for a better life outside. The number of families that had lived in Bombas in the 1970s (around 80) drastically dropped in the 1990s in response to the implementation of PETAR (Silveira 2003). The rural exodus, particularly of the younger generation, left behind a significantly smaller population and hence less participation in collective work and community activities, causing difficulties for the people resisting and persisting in the territory. The lack of road access, electricity, communication facilities, basic sanitation, and the meager education and health services further complicated the continuation of livelihood activities. These services were denied them by the state since they were considered to be clandestine dwellers inside a protected area, leading to abandonment. Recognition was therefore a key, as there was a history to restore and a dignity to reaffirm (Young 1990).

Quilombola Recognition as a Weapon against Exclusion

In 1988, when Brazil was celebrating the end of two decades of military rule and the centennial of abolition of slavery, provisions on *quilombos*, multiculturalism, and antidiscrimination were included in the new constitution with the intention to restore historical marginalization and racial inequalities (Dagnino 2005). These were significant in providing *quilombolas* with a right to traditionally occupied land and in promoting a more general recognition of their rights within Brazilian society. The administrative process of *quilombola* recognition, regulated through presidential decree 4.887/2003,[9] ensures the participation of *quilombolas* in all the steps comprising self-identification; establishment of a *quilombola* association; anthropological assessment evaluating the authenticity of the claims to a *quilombo* ancestry;

delimitation of historical territory; official recognition; demarcation and appropriation of land; and registration of land title. The recognition process does not have a predefined order (Arruti 2006).

In the Ribeira Valley, Ivaprounduva was the first community to plead *quilombola recognition* and land title to the Federal Court of São Paulo in 1995. Together with the communities of Maria Rosa, Pedro Cubas, Pilões, and São Pedro, it was officially recognized in 1998. These communities' claim for land titles was a strategy against violent land grabbing by outsiders, against the establishment of strictly protected areas overlapping their territories, and against the construction of hydropower dams on the Ribeira de Iguape River threatening to inundate their lands (Oliveira et al. 2000; Adams et al. 2013). Inspired by these and other *quilombos* in the Ribeira Valley, Bombas inhabitants started considering *quilombola* recognition to contest restricted access to and use of resources and to push for land rights. A part of the group was suspicious of what recognition could bring, thinking it was a new mechanism to expropriate land in the same way that PETAR had done, fearing that recognition was another trick by a repressive state to deny their historical rights (Silveira 2007). However, the majority of the community members came to support this option in 2001, understanding that a *quilombo* could legally claim land rights even if located inside a strictly protected area. If recognized, PETAR's borders could be changed through a Bill of Law removing the territory of Bombas from the park or, alternatively, the part overlapping Bombas could be reclassified as an Environmental Protection Area (APA), permitting human residence and activity in accordance with the SNUC law.[10] In both instances, the *quilombola* community could receive collective ownership of its land. Additionally, Bombas residents would be able to benefit from governmental programs pertaining specifically to *quilombola* communities and technical assistance from the Land Institute of São Paulo (ITESP).

The Bombas residents entered the public arena for the first time in their history in 2002 by claiming *quilombola* recognition and territorial rights.[11] This triggered a recovery of social memory of ancestry and the history of slavery, which had been repressed due to racial discrimination (Penna-Firme and Brodizio 2007). At this point, some of the inhabitants already referred to themselves as *quilombola*, while others remained reticent even though they agreed with the process. At the first visit by ITESP, the institution in charge of conducting the anthropological study required for official recognition, inhabitants were divided and asked for time to clarify their doubts. This is an example of how ethnic identity formation is marked by continuity and change and is always in the process of being constituted and contested (Sundberg 2008). After numerous internal discussions, the community finally came to an agreement and formally organized the *quilombola* association of Bombas in 2004. Silveira (2003) admits that throughout the entire research process for the anthropological report, Bombas inhabitants were skeptic, but collaborated both in the research and in the delimitation of the territory. Natural boundaries were used as markers for delimitation of the territory, and all the water springs running inside the Bombas valley were included. The Bombas territory comprised land that was permanently inhabited, land used for production activities, land essential to the preservation of environmental resources, and land needed for residents' physical and cultural reproduction, in accordance with the legal criteria of the demarcation process (Silveira 2003; Santilli 2010). The total area of the delimited Bombas territory was 3,050 ha.

ITESP's Technical and Scientific Report, based on the anthropological study, concludes that Bombas adequately fits the legal criteria for due recognition, pointing to the existence of an ethnic identity, ethnic territory, a myth of origin, a *quilombo* memory of resistance to suffered historical oppression, and significant elements of black traditional culture (Silveira 2003). Nevertheless, this report has not yet been published, as the recognition process was halted by the São Paulo Environmental Office demanding environmental studies[12] of the Bombas territory due to its location inside a strictly protected area. This precondition was based on an informal decision that had been made within the *Quilombo* Managing Group, in charge of awarding official recognition and consisting of representatives from seven state agencies led by the Justice and Defense of Citizenship Office. However, *quilombola* recognition does not require environmental studies. Presidential decree 4.887/2003 declares self-identification as a determining factor to become *quilombola* and so does the ILO 169 Convention ratified by Brazil in 2002 (Penna-Firme and Brodizio 2007; Santilli 2010). Yet, as it was in the interest of environmental authorities to be involved in the definition of the territory of Bombas, they set environmental studies as a precondition for *quilombola* recognition, crucial to obtain a land title, community control over resources, and capture of benefits.

Due to the historical marginalization and exclusion by the state and the strained relationship with forest authorities, Bombas inhabitants refused the entrance of researchers to undertake environmental studies in their territory. They did not trust that the environmental authorities would give a favorable opinion for *quilombola* recognition because of their interest in maintaining the caves hosting the blind catfish under strict protection. Forest authorities had on many occasions accused Bombas residents of posing a threat to its survival. Based on advice from the coordination and advisory team for black and *quilombola* communities in the Ribeira Valley (EEACONE), giving legal assistance to *quilombola* communities since 2004, the *quilombola* association of Bombas requested a guarantee of recognition before the undertaking of environmental studies. The São Paulo Environmental Office did not back down on its demand and the deadlock lasted until 2010. Many of the interviewees from Bombas held that the inaction of the state was a strategy to make the inhabitants abandon their territory so that no one would be left to claim land rights.

The Negotiation Process Between Bombas and PETAR

Memorandum of Intention and Work Plan

The NGO *Instituto Socioambiental* (ISA)[13] started to work with Bombas in 2006 in connection with a strategic planning project for sustainable use of *quilombola* territories (Santos and Tatto 2008). Despite the Bombas inhabitants' reluctance toward new social actors owing to the previously poor experience with the state, ISA's status as an independent nonprofit NGO and the organization's good relationship with other *quilombola* communities in the Ribeira Valley and the EEACONE contributed to the building of trust. When the Forest Foundation (FF), responsible for the administration of PETAR, started to carry out environmental studies for PETAR's long-awaited management plan in 2008, ISA convinced Bombas inhabitants to push for *quilombola* recognition and negotiate land rights, as FF also needed to undertake research inside Bombas. This idea was reinforced in 2010 when São Paulo Environmental Office's Resolution 29 was published as the first legislation

on environmental studies to be undertaken in situations where strictly protected areas overlap *quilombola* territories, and treating the process for changing of boundaries of protected areas and reclassification of conservation categories. With ISA as a mediator and EEACONE as a legal adviser, the *quilombola* association of Bombas agreed to enter negotiation with FF and ITESP. A first meeting between the *quilombola* association, state officials, intermediaries, and other interest holders took place in January 2010 to discuss different interests of the involved actors and institutions (Table 1). In this meeting, the *quilombola* association of Bombas challenged institutionalized exclusion, a social culture of misrecognition, and distributional patterns (Schlosberg

Table 1. Actors and institutions involved in the Bombas claim and their expressed interests

	Actors and institutions	Expressed interests
Local community	• *Quilombola* association of Bombas	• Legalize residence and resource use through recognition as a *quilombo* and retrieval of PETAR's boundaries from its ancestral land • Access to social services and infrastructure to improve life conditions and facilitate initiation of alternative income generating activities
Forest authorities	• São Paulo Environmental Office (SMA) • Forest Foundation (FF) • The Upper Ribeira State Touristic Park (PETAR) • Atlantic Forest Biosphere Reserve (RBMA)	• Maintain control over PETAR because of its high conservation value (the Atlantic Forest, limestone caves, and the blind catfish) • Realization of environmental studies inside Bombas for PETAR's Management Plan
Other government agencies	• Justice and Defense of Citizenship Office (SJDC) • São Paulo Land Institute (ITESP)	• Advancement of *quilombola* recognition process and titling • Provision of technical assistance to the Bombas community for initiation of small-scale income generating projects
Mediatory civil society organizations	• Socioenvironmental NGO (ISA) • Coordination and advisory team for black and *quilombola* communities in the Ribeira Valley (EEACONE)	• Advancement of *quilombola* recognition process and titling • Access of Bombas inhabitants to social services and infrastructure and improved livelihoods

2007). This supports the arguments of Young (1990) and Fraser (1998) that communities experiencing environmental injustices integrate demands for equity, recognition, and participation into a broad call for justice.

In a second meeting held in September 2010, the *quilombola* association accepted the environmental study, upon advice from ISA. After FF had written a memorandum of intention and a work plan, the community members met again in November with ISA and EEACONE to discuss these documents and give suggestions for adjustments. The Bombas association stressed that "the invader is the Park, not us," demanding recognition of their presence before Park establishment. By doing this, the inhabitants contested the discourse of Bombas being an "untouched" forest devoid of human agency, opposing relocation (Diegues 1998). Furthermore, the association claimed procedural equity through a "place at the table," demanding participation in the fieldwork, in the elaboration of the research report, and in the final territorial decision to ensure a fairer negotiation (Fraser 1998). According to Schlosberg (2007), the demand for this type of authentic, community-based participation comes out of the experience of disenfranchisement, which is a result of misrecognition. The *quilombolas'* demands were accepted by FF, and the memorandum of intention and the work plan were signed by FF, ITESP, and the *quilombola* association of Bombas in December 2010.[14]

Environmental Study

A research team from the Agricultural University of São Paulo (ESALQ) was contracted by FF to carry out the environmental studies in Bombas, where 12 bachelor's degree students in Forest Engineering had been selected for collection of most of the data. A meeting was scheduled in February 2011, but the PETAR manager and the researchers did not show up. No notification had been done about the cancelation, and Bombas inhabitants complained that the meetings were always delayed or, in this instance, canceled without them being informed. Provision of food and equipment needed for the days the researchers were doing fieldwork was also not arranged for as promised. Furthermore, the research team did not manage to complete the studies within the deadline. The final report, "Analysis of the Sustainability of the Community of the *Quilombo* Bombas," was presented to FF in March 2012, 8 months delayed. On the other hand, the Bombas residents at no time violated any arrangements. The uneven ways that institutional arrangements worked for the state authorities and the *quilombola* association illustrate how these actors held unequal power (Lukes 2005). The misuse of the forest authorities' more powerful position to repeatedly break promises, disrespecting the *quilombolas* and their legitimate claims, made Bombas residents lose trust in state authorities.

Territorial Proposal

The territorial proposal of Bombas was presented by FF in June 2012, 1 year after the original plan. In contrast to the territory defined by ITESP of 3,050 ha, FF presented a proposal reducing the territory of Bombas to 2,402 hectares (Figure 1). In this proposal, FF excluded the area of Córrego Grande based on the good conditions of the Atlantic Forest and the existence of water sources that flow into the Areias cave where the blind catfish lives. FF claimed that the Areias and Bombas caves were two out of three hotspots of tropical subterranean biodiversity in Brazil,

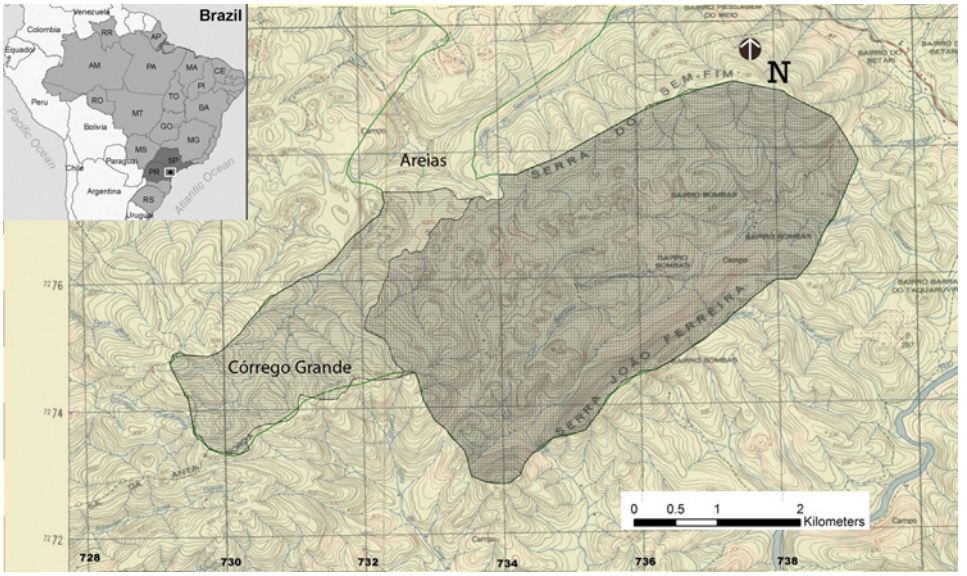


Figure 1. Territory of 3,050 ha as indicated by community members of Bombas in the Technical Scientific Report of the Land Institute of São Paulo (ITESP) based on an anthropological study (highlighted in light and dark gray) versus territory of 2,402 ha as indicated by the Forest Foundation (FF) based on an environmental study (highlighted in dark gray). *Source*: Forest Foundation, presented in meeting, June 2012.

and a total of 21 globally, and therefore needed strict protection (Culver and Pipan 2009). The *quilombola* association did not accept FF's proposal, arguing that Córrego Grande is part of their historical territory and their identity. Some of the inhabitants' forefathers used to have agricultural plots in Córrego Grande, and evidence of management and occupation can be confirmed by the presence of planted fruit trees, traces from households, and historical trails used for communication with the *quilombo* Porto Velho and the traditional communities Anta Gorda and Pavão (Andrade and Tatto 2013). They further claimed that the area was covered by regenerated Atlantic Forest in advanced stage because the community always preserved the area, contesting the discourse labeling them as "forest destroyers." In opposition, Bombas residents appropriated a "green (sustainability) discourse" valuing them as legitimate stewards of biodiversity in attempt to protect their rights (Penna-Firme and Brodizio 2007; Sundberg 2008). As an alternative, the *quilombola* association proposed to turn Córrego Grande into a Private Natural Heritage Reserve (RPPN)[15] within the Bombas territory. In the next meeting between the involved actors in July 2012, FF accepted this proposal, recognizing the entire historical territory of 3,050 ha corresponding to the ITESP map. The meeting ended with a round of applause.

However, this agreement was never fulfilled. The two FF managers who had accompanied the negotiations from the outset in 2010 were fired by the FF director the same day that the agreement was made with the *quilombola* association of Bombas. The firing of the FF managers was part of a larger institutional restructuration of FF through decree 57.933/2012. What this meant in praxis was that the settlement was no longer valid, as the FF managers did not have the opportunity

to send it for juridical evaluation. The *quilombola* association of Bombas sent a letter to the governor of São Paulo, the Justice and Defense of Citizenship Office, and the São Paulo Environmental Office complaining about the nonaccountable recognition process. This strategy led to another meeting between the involved actors in February 2013, where FF's first territorial proposal of 2,402 ha was once again presented. Arguments of national goods of protection of Córrego Grande and local incompetence to manage the area were used to support its exclusion from the Bombas territory (Sundberg 2008).

The *quilombola* association was faced with two options: either accept FF's territorial proposal or take the case to court. In June 2013, the *quilombola* association decided to accept FF's territorial proposal on the conditions that (1) the community would be officially recognized as a *quilombo* by ITESP and be granted a land title to the agreed territory, (2) PETAR's boundaries would be retrieved from the Bombas territory, and (3) an access road would be provided by the Department of Highways. Even so, ISA and EEACONE did not assist in committing the responsible organs before FF's proposal was approved. After demarcation of the new Bombas territory of 2,402 ha, excluding Córrego Grande, the recognition process froze in the juridical section of the Environmental Office, awaiting approval. Due to this holdup, São Paulo's Public Defense Office in Registro filed a lawsuit in March 2014 on behalf of the *quilombola* association of Bombas, pressuring the state to immediately fulfill the *quilombolas'* demands. Later, in August, a meeting was held with the interest parties where the *quilombola* association of Bombas once again agreed to exclude Córrego Grande from its territory if the state signed and published a document stating its obligation to meet the community's demands. The state organs did only commit to recognize the community as a *quilombo* and the Bombas residents accepted this in fear of further inaction from the state. However, they announced that they would continue to fight for the retrieval of overlapping Park boundaries and construction of an access road and other infrastructure development as elaborated in the lawsuit. In celebration of the Black Awareness Day in November 2014, Bombas was officially recognized as a *quilombola* community by ITESP.

Justice in an Unequal Relationship?

Centuries of colonial law and slavery and two decades of dictatorship have excluded Afro-Brazilians from citizenship and land rights, and their inferior status has been used to justify and perpetuate unequal social relations (Rapoport 2008). As a weapon against social exclusion and discrimination, many marginalized Afro-Brazilians have reappropriated values and practices and constructed a *quilombola* identity, which has not previously existed (Penna-Firme and Brodizio 2007). The legal foundation of the 1988 Constitution ensuring *quilombos'* land rights, the SNUC law guaranteeing civil society's participation in environmental policy and practice, and the São Paulo Environmental Office's Resolution 29/2010 developed to resolve overlapping situations of *quilombos* and strictly protected areas, together opened up space for the *quilombola* association of Bombas to negotiate territorial rights with the state. As a response to the political and structural obstacles constructed by historical oppression, lack of political access, and cultural degradation, the residents of Bombas came to demand *quilombola* recognition and effective participation in the negotiation over rights to their ancestral land (Schlosberg 2007).

The community's claims for participation, recognition, and distributional justice were expressed in intertwined ways throughout the negotiation process. Alliance building with ISA and EEACONE served to strengthen Bombas inhabitants' voices and mobilization, enabling them to articulate their grievances and to contest their imposed role as clandestine dwellers in their own territory.

In fear of being overruled by state authorities, Bombas residents requested participation in the formulation of the memorandum of intention and the work plan, in the fieldwork, and in the elaboration of the research report in order to influence the knowledge production and decision-making on territorial boundaries. This ensured that the *quilombola* association's voice was present throughout the entire negotiation process. Nevertheless, forest authorities had more "agenda-setting power" than the *quilombola* association and the mediators (Lukes 2005). The forest authorities' superior influence in the negotiation meetings and research process allowed them to repeatedly fail to comply with agreed agendas and promises, making the negotiation process nonaccountable. The delay of the research process, of delivery of the research report, and of the presentation of a territorial proposal led to a loss of opportunity to continue the negotiation while cooperative managers were employed in FF. The firing of the two FF managers, the same day they accepted the historical territory of Bombas, and the freezing of the recognition process after Bombas had agreed to exclude Córrego Grande from its territory, further shows FF's lack of accountability. Authority, status, and assets all matter when it comes to making and breaking of institutional rules. The forest authorities' misuse of their more powerful position served to produce considerable uncertainty among the Bombas inhabitants, thus aggravating their lack of confidence in state authorities (Ostrom 2011).

The *quilombola* association's influence on the decision-making of the boundaries of the territory was also inferior to the influence of the forest authorities that controlled politics "backstage" (Lukes 2005). The forest authorities' interest in protecting Córrego Grande from human interference maintained debate and prevailed in the end. The use of arguments in favor of strict protection of Córrego Grande shows a persistence of the "fortress conservation" paradigm, seeking to preserve wildlife and their habitat through exclusion of local people, that had gained force during the military dictatorship in Brazil (Diegues 1998). Bombas inhabitants were in the implementation of PETAR and in the negotiation process framed as threats to biodiversity in general and a threat to the blind catfish specifically because of their so-called inappropriate resource practices and lack of proper training and education (Sundberg 2008). They were thereby asked to pay the price of exclusion for a global benefit of biodiversity conservation. Although the Bombas residents expressed that they valued the distinct meanings, histories, and socioeconomic utility of Córrego Grande, their knowledge and interests were sidelined to the interests of the more powerful forest authorities. This is unfortunate as *quilombolas'* subsistence practices have been found to play a role in shaping the Atlantic Forest, potentially increasing biodiversity and structural ecological complexity (Adams et al. 2013; Thorkildsen 2014). The proposal of transforming Córrego Grande into a RPPN should therefore have been developed further by the *quilombola* association of Bombas with the support of ISA and EEACONE.

Although the Brazilian legal framework has opened new political spaces, offering a mix of opportunities and peril for *quilombolas*, this article has shown that centuries-old patterns of exclusion persist in the Brazilian state apparatus. The sources

of social exclusion include the state's dismissive disposition toward *quilombos* (stemming from their socially and economically marginalized position within Brazil), the use of informal decisions to stop the *quilombola* recognition process, the use of exclusionary practices in the research and negotiation process through lack of commitments and controlling politics "backstage," and the persistent use of exclusionary discourses of "forest destroyers" to support "fortress conservation." The entrenched discrimination and the forest authorities' use of exclusionary practices and discourses worked to preclude *quilombolas* from participating in decision-making, severely impeding their ability to realize their rights. Given the disparities in socioeconomic and political power between the actors involved in the negotiation process, it is not surprising that the relations of domination of the forest authorities over the *quilombola* inhabitants were maintained (Ostrom 2011). The negotiation meetings served as a forum for challenging the power imbalances, but did not produce a real shift in power, as the negotiation arena did not open up space for meaningful participation where *quilombolas'* voice could significantly influence the agenda and key decisions.

After twelve years of struggle, Bombas was officially recognized as a *quilombo*, but only after having given up Córrego Grande and having filed a lawsuit against the state. If justice is to be attained in this unequal relationship between the *quilombo* and the state, the *quilombola* association's claims for regularized land title, retrieval of PETAR's overlapping boundaries, and access to infrastructural development need to be fulfilled without delay. For Bombas residents, title to their land means both recognition of their existence and rights within Brazilian society and the assurance of their community's survival (Rapoport 2008). Only after the realization of the *quilombolas'* rights and recognition of their role as legitimate stewards of biodiversity can trust in forest authorities be built. This is essential for establishing a partnership between the *quilombo* and the state in territorial governance of Bombas, and for the achievement of a more inclusive conservation of the Brazilian Atlantic Forest.

Acknowledgments

I express thanks for the information and viewpoints shared by community members of Bombas, other *quilombolas* in the Ribeira Valley, state officials, politicians, researchers, and representatives from civil society organizations participating in this research. I am very grateful for the support received from the socioenvironmental NGO *Instituto Socioambiental*, particularly from the Ribeira Valley Program leader and my local supervisor Nilto Tatto and the anthropologist Anna Maria Andrade. Furthermore, thanks are extended to my supervisors Randi Kaarhus and Ian Bryceson for guidance and constructive feedback on the research. I also appreciate insightful comments on earlier drafts of the article by Randi Kaarhus, Tor Arve Benjaminsen, and Espen Olav Sjaastad, as well as three anonymous reviewers. Lastly, I thank Josie Teurlings for assistance with the map.

Funding

The research has been financed by a PhD grant from the Norwegian University of Life Sciences.

Notes

1. The Armed Forces did a coup d'état in 1964 with support from the United States, overthrowing the democratically elected President João Goulart.
2. *Quilombo* is an Afro-Brazilian settlement formed mainly by runaway and freed slaves in the 18th and 19th centuries and former slaves after the abolition of slavery in 1888. The residents, *quilombolas*, received land by donation or through heritage, or else occupied abandoned or vacant government lands.
3. Article 68 of the Transitional Constitutional Provisions Act declares: "Final ownership shall be recognized for the remaining members of the ancient runaway slave communities who are occupying their lands and the State shall grant them the respective title deeds."
4. Culturally differentiated groups that possess proper forms of social organization and that occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral, and economic reproduction (Decree 6.040/2007 regulating the SNUC law).
5. Coordination and advisory team for black and *quilombola* communities in the Ribeira Valley (EEACONE), socioenvironmental NGO (ISA), Land, Work and Citizenship Institute (ITTC), Public Attorney's Office (MPF), Land Institute of São Paulo (ITESP), National Institute of Colonization and Agrarian Reform (INCRA), Upper Ribeira State Touristic Park (PETAR), Forest Foundation (FF), Atlantic Forest Biosphere Reserve (RBMA), Agricultural University of São Paulo (ESALQ).
6. Of its original extent of 129 million hectares, between 11.4% and 16% remains, depending on whether or not intermediate secondary forests and small fragments (<100 ha) are included in the calculations (Ribeiro et al. 2009). Regardless of being one of the most threatened biomes in the world, the Atlantic Forest is considered one of the five most important biodiversity hotspots (Myers et al. 2000).
7. Through state decree 32.283.
8. As a response to mining interests in the area, PETAR was reduced to 351,000 ha in 1969 by decree 14.321.
9. Launched on November 20 on Brazil's National Black Awareness Day.
10. Twelve other *quilombos* in the Ribeira Valley were classified as APAs in 2008, making up the "APA of the *Quilombos* of Medium Ribeira," included in the Mosaic of Jacupiranga.
11. ITESP process 1186/2002.
12. Assessment of physical, biological, and anthropic indicators, pointing to socio–environmental impacts of changing of park boundaries or reclassification of conservation categories.
13. ISA was founded in 1994 and is the leading NGO on indigenous and *quilombola* populations' rights and issues in Brazil.
14. ITESP process 704/2010.
15. RPPN is created by the private landowner that takes on the responsibility for nature conservation.

References

Adams, C., L. C. Munari, N. Van Vliet, R. S. S. Murrieta, B. A. Piperata, C. Futemma, N. N. Pedroso, C. S. Taqueda, M. A. Crevelaro, and V. L. Spressola-Prado. 2013. Diversifying incomes and losing landscape complexity in quilombola shifting cultivation communities of the Atlantic Rainforest (Brazil). *Human Ecology* 41(1): 119–37. doi:10.1007/s10745-012-9529-9

Andrade, A. M., and N. Tatto. 2013. *Inventário cultural de quilombos do Vale do Ribeira*. São Paulo, Brazil: Instituto Socioambiental.

Arruti, J. M. 2006. *Mocambo: Antropologia e história do processo de formação quilombola*. Bauru, SP, Brazil: Edusc.

Barreto Filho, H. T. 2004. Notas para uma história social das áreas de proteção integral no Brasil. In *Terras indígenas e unidades de conservação da natureza*, eds. F. Ricardo and V. Macedo, 53–63. São Paulo, Brazil: Instituto Socioambiental.

Beymer-Farris, B. A., and T. J. Bassett. 2012. The REDD menace: Resurgent protectionism in Tanzania's mangrove forests. *Global Environmental Change* 22(2): 332–41. doi:10.1016/j.gloenvcha.2011.11.006

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

Bullard, R. D., and B. H. Wright. 1990. The quest for environmental equity: Mobilizing the African-American community for social change. *Society & Natural Resources* 3: 301–11. doi:10.1080/08941929009380728

Culver, D. C., and T. Pipan. 2009. *The biology of caves and other subterranean habitats*. Oxford, UK: Oxford University Press.

Cunha, M. C. 1987. *Antropologia do Brasil: Mito, história, etnicidade*. São Paulo, Brazil: Brasiliense.

Dagnino, E. 2005. 'We all have rights, but . . .': Contesting concepts of citizenship in Brazil. In *Inclusive citizenship: Meanings and expressions*, ed. N. Kabeer, 149–63. London, UK: Zed Books.

Diegues, A. C. 1998. *The myth of untamed nature in the Brazilian rainforest*. São Paulo, Brazil: NUPAUB Research Center on Human Population and Wetlands.

Diegues, A. C. 2011. *Povos e comunidades tradicionais em áreas de proteção integral no Brasil. Conflitos e direitos*. São Paulo, Brazil: NUPAUB Research Center on Human Population and Wetlands.

Esterci, N., and A. Fernandez. 2009. O legado conservacionista em questão. *Revista Pós Ciências Sociais* 6(12):15–40.

Ferreira, L. C. 2004. Dimensões humanas da biodiversidade: Mudanças sociais e conflitos em torno de áreas protegidas no Vale do Ribeira, SP, Brasil. *Ambiente & Sociedade* 7:47–66. doi:10.1590/s1414-753x2004000100004

Forsyth, T., and A. Walker. 2008. *Forest guardians, forest destroyers: The politics of environmental knowledge in northern Thailand*. Seattle, WA: University of Washington Press.

Fraser, N. 1998. Social justice in the age of identity politics: Redistribution, recognition, and participation. *The Tanner Lectures on Human Values* 19:2–67.

Harvey, D. 1996. *Justice, nature and the geography of difference*. Cambridge, MA: Blackwell.

Hooker, J. 2005. Indigenous inclusion/black exclusion: Race, ethnicity and multicultural citizenship in Latin America. *Journal of Latin American Studies* 37:1–26. doi:10.1017/s0022216x05009016

Karmann, I., and J. A. Ferrari. 2002. Carste e Cavernas do Parque Estadual Turístico do Alto Ribeira (PETAR), SP: Sistemas de cavernas com paisagens subterrâneas únicas. In *Sítios geológicos e paleontológicos do Brasil*, ed. C. Schobbenhaus, D. A. Campos, E. T. Queiroz, and M. Berbert-Born, 401–13. Brasília, Brazil: DNPM/CPRM, Comissão Brasileira de Sítios Geológicos e Paleobiológicos (SIGEP)

Krone, R. 1950. As grutas calcárias do vale do rio Ribeira de Iguape. *O Instituto Geográfico e Geológico* 8(3):248–97.

Kurtz, H. E. 2003. Scale frames and counter-scale frames: Constructing the problem of environmental injustice. *Political Geography* 22:887–916.

Lazarus, R. J. 1993. Pursuing "environmental justice": The distributional effects of environmental protection. *Northwestern University Law Review* 87(3):787–857.

Lukes, S. 2005. *Power: A radical view*. Basingstoke, UK: Palgrave Macmillan.

Marinho, M. A., and S. A. Furlan. 2007. Conflitos e possíveis diálogos entre parques e populações: Intervales e guapiruvu, SP. *Floresta e Ambiente* 14(2):22–34.

Medeiros, R. 2006. Evolução das tipologias e categorias de áreas protegidas no Brasil. *Ambiente & Sociedade* 9(1):41–64. doi:10.1590/s1414-753x2006000100003

Myers, N., R. A. Mittermeier, C. G. Mittermeier, G. A. B. Fonesca, and J. Kent. 2000. Biodiversity hotspots for conservation priorities. *Nature* 403:853–58.

Oliveira, A. N., Jr., D. Stucchi, M. F. Chagas, and S. S. Brasileiro. 2000. Comunidades Negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria

Rosa e Pilões. In *Negros do Ribiera: Reconhecimento Étnico e Conquista do Território*, eds. T. Andrade, C. A. C. Pereira, and M. R. Oliveira Andrade, 2nd ed., 39–192. São Paulo, Brazil: ITESP.

Ostrom, E. 2011. Background on the institutional analysis and development framework. *Policy Studies Journal* 39(1):7–26. doi:10.1111/j.1541-0072.2010.00394.x

Penna-Firme, R., and E. Brodizio. 2007. The risks of commodifying poverty: Rural communities, quilombola identity and nature conservation in Brazil. *Habitus* 5(2):355–73.

Rapoport. 2008. *Between the law and their land: Afro-Brazilian quilombo communities' struggles for land rights*. Austin, TX: University of Texas of Austin, Rapoport Center for Human Rights and Justice.

Ribeiro, M. C., J. P. Metzger, A. Camargo Martensen, F. J. Ponzoni, and M. M. Hirota. 2009. The Brazilian Atlantic Forest: How much is left, and how is the remaining forest distributed? Implications for conservation. *Biological Conservation* 142(6):1141–53. doi: http://dx.doi.org/10.1016/j.biocon.2009.02.021

Santilli, J. 2010. Human-inhabited protected areas (HIPAs) and the law: Integration of local communities and protected area in Brazilian law. *Journal of Sustainable Forestry* 29(2–4):390–402.

Santos, K. M. P., and N. Tatto. 2008. *Agenda socioambiental de comunidades Quilombolas do Vale do Ribeira*. São Paulo, Brazil: Instituto Socioambiental.

Schlosberg, D. 2007. *Defining environmental justice: Theories, movements, and nature*. Oxford, UK: Oxford University Press.

Schroeder, R., K. S. Martin, B. Wilson, and D. Sen. 2008. Third World environmental justice. *Society & Natural Resources* 21(7):547–55. doi:10.1080/08941920802100721.

Scott, J. C. 1985. *Weapons of the weak: Everyday forms of peasant resistance*. New Haven, CT: Yale University Press.

Silveira, P. C. B. 2003. *Relatório técnico científico sobre os remanescentes da comunidade de quilombo de Bombas Iporanga-São Paulo*. São Paulo, Brazil: ITESP (unpublished).

Silveira, P. C. B. 2007. Conflitos socio-ambientais e mobilização de identidade: Um estudo na Mata Atlântica (paper presented at the the 31st encounter of ANPOCS, Caxambu, Minas Geras, Brazil, October 22–26 2007).

Sundberg, J. 2008. Placing race in environmental justice research in Latin America. *Society & Natural Resources* 21(7):569–82. doi:10.1080/08941920802111538

Thorkildsen, K. 2014. Social–ecological changes in a quilombola community in the Atlantic Forest of southeastern Brazil. *Human Ecology* 42(6):913–27. doi:10.1007/s10745-014-9691-3

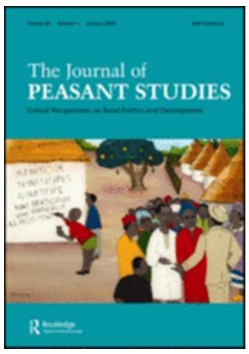
Urkidi, L., and M. Walter. 2011. Dimensions of environmental justice in anti-gold mining movements in Latin America. *Geoforum* 42(6):683–95. doi: http://dx.doi.org/10.1016/j.geoforum.2011.06.003

Walker, G. 2009. Globalizing environmental justice: The geography and politics of frame contextualization and evolution. *Global Social Policy* 9(3):355–82. doi:10.1177/1468018109343640

West, P., J. Igoe, and D. Brockington. 2006. Parks and peoples: The social impact of protected areas. *Annual Review of Anthropology* 35:251–77.

Young, I. M. 1990. *Justice and the politics of difference*. Princeton, NJ: Princeton University Press.

Zerner, C. 2000. *People, plants, and justice: The politics of nature conservation*. New York, NY: Columbia University Press.



'Land yes, dam no!' Justice-seeking strategies by the anti-dam movement in the Ribeira Valley, Brazil

Journal:	*Journal of Peasant Studies*
Manuscript ID	Draft
Manuscript Type:	Regular research article
Keywords:	Large dams, socio-environmental movements, environmental justice, scales, quilombola identity, Brazil

‘Land yes, dam no!’ Justice-seeking strategies by the anti-dam movement in the Ribeira Valley, Brazil

This article examines how environmental justice dimensions have been articulated across spatial scales by the Movement of People Threatened by Dams (MOAB) in the Ribeira Valley, Brazil. It is argued that this anti-dam movement was kicked off by mobilising Afro-descendants around local livelihood and socioecological issues. At the outset, recognition as *quilombos* and land rights were advocated for, but MOAB quickly broadened its agenda to include distributive and procedural issues and expanded its network. The article concludes that MOAB has successfully used different scales for framing, mobilisation and action, which has contributed to the dam project being put on hold.

Keywords: Large dams; socio-environmental movements; environmental justice; scales, *quilombola* identity; Brazil

Introduction

Environmental justice as a discourse of political action and an interpretative frame is relatively new in Latin America, where the first formal environmental justice network was launched in 2001 in Brazil (Carruthers 2008, Urkidi and Walter 2011). Perceived and experienced environmental injustices are, however, far from new, dating back to European colonisation and slavery in the sixteenth-century. As other Latin American countries, Brazil’s history is marked by extensive and intensive exploitation of natural resources and human labour, and by concentration of wealth and power (Acselrad 2008). One of the consequences of this has been that indigenous and traditional communities, racially discriminated groups and low income populations have been exposed to disproportionately higher environmental and social harms than other citizens (Porto, Pacheco, and Leroy 2013). The needs and concerns of such marginalised groups have historically not been recognised as they have been excluded from participation in decisions that affect their lives. This trend was reinforced during two periods of authoritarian rule (1937–1945 and 1964–1985) when civil liberties and democratic institutions were restricted, and policies exacerbating inequality were advanced (Skidmore 2010, Dagnino 2005, Martins, Medeiros, and Nascimento 2004).

Brazil’s last military regime’s *abertura,* or political liberalisation, in the mid-1970s opened up for popular participation and positioning of civil society toward the country’s authoritarian development model, which had caused impoverishment of local people and environmental degradation (Acselrad 2008, Cardoso 1992). At the return to democracy in 1985, some social movement groups began to join forces with scientists, environmentalists and political activists, giving rise to a new political identity known as *socioenvironmentalism* (Santilli 2005). During the drafting of a new constitution, socio-environmental movements and other civil society actors actively lobbied for democratisation of political institutions, a long list of citizen rights and also the recognition of difference of ethnic groups (Escobar and Alvarez 1992). Their efforts resulted in a more democratic Constitution entering into force in 1988, which promoted participatory decision-making processes and granted territorial rights to both indigenous and Afro-Brazilian *quilombola* communities descending from slaves (Dagnino 2005). Unfortunately, despite these political advances, socio-environmental struggles are far from diminishing. Civil society organisations have

recently published a 'Map of Environmental Injustice and Health' consisting of an online database of socio-environmental conflicts throughout Brazil (Porto, Pacheco, and Leroy 2013). Here, over 400 cases labelled 'environmental injustice' have been registered, including the construction of large hydropower dams and other infrastructure projects, the expansion of agriculture and mining, oil and gas extraction, pesticide pollution and nuclear waste disposal. Brazilian socio-environmental movements therefore continue to call into question the country's economic growth at the cost of the environment, human and cultural rights and institutional fairness.

While socio-environmental conflicts over different forms of 'land grabbing' intensify throughout Brazil, scholarly research on movement groups' resistance to neoliberalism is expanding (Pahnke, Tarlau, and Wolford 2015). Studies examine a wide range of issues including movements' contestations of knowledge production, development of alternative economies and different movement claims and practices (e.g. McCormick 2006, Klein 2015, Wolford 2010). However, little research has analysed how movements' demands and strategies are framed and mobilised at different scales through an environmental justice framework in Brazil (Acselrad 2008) or elsewhere in Latin America (Urkidi and Walter 2011, Carruthers 2008). This might be explained by the recent emergence of environmental justice networks in this continent, and since most marginalised groups have not named their resistance as environmental justice struggles (Souza 2008). Here, I will argue that environmental justice concerns are deeply rooted in many Latin-American movements' mobilisations for social justice, equity and environmental rights. In an attempt to contribute to the understanding of how environment justice dimensions are articulated across spatial scales, the present article sets out to examine the emergence and development of the Movement of People Threatened by Dams (*Movimento dos Ameaçados por Barragens* – MOAB) in the Ribeira Valley, Brazil. By combining the three elements of justice – distribution, recognition and participation – with scalar dimensions, this article explores how *quilombolas* and sections of civil society have come together in the struggle against large hydropower dams and for a more socially and ecologically just development model.

Conceptual framework and methodology

Environmental justice: a multidimensional and multi-scalar concept

Early environmental justice scholars in the 1980s and 1990s set out to study movement groups and communities resisting the imposition of toxic and polluting facilities in low-income and African-American communities in the United States (Walker 2009). These studies typically used quantitative approaches to assess the socio-spatial distribution of environmental risks and benefits as produced by racial, class-based, economic or global geopolitical disparities (Holifield 2015, Walker and Bulkeley 2006). However, there was initially a divergence between activists' demands for environmental justice on the one hand and theories about environmental justice on the other. While activists often claimed more equal distribution, recognition of difference and participation, most scholars focused on the distributional dimension of justice (Schlosberg 2004). In theorising social justice, Iris Young (1990) criticised the dominant distributive paradigm in liberal theories of justice and pointed to the importance of understanding the underlying social structures and institutional contexts producing and sustaining unequal distribution. Part of the reason for distributional inequities, she argued, was the lack of recognition of group difference in the social and political spheres. Nancy Fraser (1998) is another social justice scholar who has been influential in advocating for recognition as a matter of social justice. In furthering their arguments for recognition, both Young and Fraser contend that 'misrecognition' inhibits individuals and groups access to critical socioeconomic institutions and prevents them from full participation in social life (Young 1990, Fraser 1998). Following the pluralistic social justice tradition, Schlosberg (2004, 2007) and others combined distribution, recognition and participation (as procedural justice) into a

three dimensional environmental justice concept. Since then, there has been a proliferation of studies integrating these dimensions, many of which adopt qualitative approaches (Banerjee 2014, Urkidi and Walter 2011, Sneddon and Fox 2008) (author, date).

Harvey (1996) sees the importance of acknowledging the different dimensions of environmental justice, but he is not altogether positive. He is concerned that the diverse movements, many of which are locally-centered, with their different readings of justice will limit more systemic opposition. He notes that: '[A]s a movement embedded in "multiple particularisms", it [the environmental justice movement] has to find a way to cross that problematic divide between action that is deeply embedded in *place,* in local experience, power conditions and social relations to a much more general movement'(Harvey 1996; 399). Harvey therefore warns about place-based movements' limited capacities to affect broader political transformations and argues that 'militant particularism' – a local refusal to be victimised by global processes – must be transcended by 'scaling up' the struggles. Only by adopting a 'politics of abstraction capable of reaching across space' can movements address the social-ecological abuses linked to capitalist appropriation of the means of production and capitalist 'accumulation by dispossession' of land and access to resources (Harvey 1996; 400). Harvey therefore insists on movements' move from the multiple and particular to the singular and universal, but stresses that this has to be done without abandoning their militant particularist base where they derive their distinctive power from.

Other scholars offer an alternative to Harvey's local/global binary vision of the political sphere by endorsing a 'politics of scale' approach as a way to examine how movement groups' use multiple scales to mobilise their claims (Taylor 2000, Towers 2000, Kurtz 2003, Sneddon and Fox 2008, Williams 1999, Szasz 1994, Haarstad and Floysand 2007). Williams (1999; 56) illustrates that the politics of scale originates in a divergence between the scale of a societal problem and its political resolution (or amelioration). Based on the literature on the political geography of scale, Towers (2000) conceptualises a framework for the politics of scale at the interplay between scales of meaning and scales of regulation. 'Scales of meaning' are the scales where a problem is experienced and framed in political discourse and 'scales of regulation' are the scales where a problem can be politically addressed. These scales intersect geographically and politically and are linked by social structures and human agency. Towers (2000) argues that scales of meaning can strategically be invoked by grassroots movements to take advantage of regulatory criteria and political circumstances at different scales of regulation. Success of a movement has been claimed to lie in its ability to adjust the scale of meaning with the relevant scale of regulation (Bickerstaff and Agyeman 2009).

Although some studies have examined the spatiality of environmental justice dimensions (e.g. Urkidi and Walter 2011, Sneddon and Fox 2008), this line of research is still in its infancy (Holifield 2015). The present study's adoption of a multidimensional and multi-scalar analysis of MOAB's diverse justice-seeking strategies intends to contribute to this emerging research.

Methods

The empirical data used for the analysis of MOAB's emergence and the development of its justice-seeking strategies is based on 60 open-ended interviews with key informants between 2010 and 2013. Interviewees were selected by using snowball-sampling and included leaders in 10 *quilombola* communities in the Ribeira Valley[1] as well as representatives from social movements, religious orders and non-governmental organisations (NGOs), government officials, politicians, researchers, lawyers, teachers and other key actors in the dam dispute[2]. Interviews explored the

[1] Abobral, Sapatu, André Lopes, Nhunguara, Ivaporunduva, Galvão, São Pedro, Bombas, Porto Velho and Praia Grande.

[2] MOAB/EEACONE, the national MAB, Socio-environmental NGO (ISA), Land, Work and Citizenship Institute (ITTC), Ribeira Valley Sustainable Development and Citizenship NGO (IDESC), the Environmental Defence and Studies Centre (CEDEA), Public Attorney's Office (MPF), Land Institute of São Paulo (ITESP), Colonisation and Land Reform Institute (INCRA), Forest Foundation (FF), Atlantic Forest Biosphere Reserve (RBMA), Eldorado

historical and cultural background of the *quilombola* communities and the residents' relationship to their land and the Ribeira de Iguape River, perceptions of the dam proposals, the rise and development of MOAB and the movement's claims and strategies. The interviews lasted on average 50 minutes and were recorded and later transcribed and analysed. Attendance in meetings organised by MOAB/Coordination and Advisory Team for Black and *Quilombola* Communities in the Ribeira Valley (EEACONE) and the national Movement of Dam-Affected People (MAB) as well as various workshops and seminars in different *quilombola* communities where the dam proposals were discussed have further contributed to provide insight into the case. Additionally, secondary sources such as the 2005 Environmental Impact Assessment (EIA) of the Tijuco Alto dam and its criticism, policy documents, the media, websites, newsletters, press releases, leaflets and historical records have been used to complement the empirical data.

A brief history of the Ribeira Valley and hydropower dam proposals

The Ribeira Valley owes its name to the 470 km long Ribeira de Iguape River, which runs through the states of Paraná and São Paulo in south-eastern Brazil. The hydrographical basin of the Ribeira River covers an area of 2.830.666 hectares which embraces 31 municipalities – 9 in the state of Paraná and 22 in the state of São Paulo – inhabited by almost half a million people (Santos and Tatto 2008). The Ribeira Valley is often cited as an economically poor and underdeveloped region, but at the same time presented as culturally and environmentally rich, diverse and well-preserved (Diegues 2007, Coelho and Favareto 2008, Hogan et al. 1999, Tatto 2014). On the one hand, the Ribeira Valley holds the lowest Human-Development Index in the state of São Paulo, with an average 0,75, including the highest rates of infant mortality and illiteracy[3] (PNUD 2013). On the other hand, it harbours the largest continuous remnant of Atlantic Forest in Brazil, comprising 2,1 million hectares, including 150,000 hectares of sandbank vegetation and 17,000 hectares of mangrove forest, the biologically diverse Lagunar Estuarine Lake Complex of Iguape-Cananéia-Paranaguá, and it hosts the second highest number of caves and subterranean biodiversity in Brazil with 273 registered natural cavities (Porto, Pacheco, and Leroy 2013, Santos and Tatto 2008, Culver and Pipan 2009). Furthermore, the Ribeira Valley is socio-culturally diverse, being the home to European, north-American and Japanese immigrants and a number of traditional communities including twelve indigenous communities, 80 traditional *caiçara* fishing communities and 88 Afro-descendant *quilombola* communities[4] (Andrade and Tatto 2013, Diegues 2007).

The origin of the large number of *quilombola* communities in the Ribeira Valley dates back to the introduction of African slaves for use in mining activities by different European colonisers in the sixteenth-century (Oliveira Jr et al. 2000). Discovery of alluvial gold in Upper and Medium Ribeira in the 1550s stimulated the establishment of settlements along the margins of the Ribeira de Iguape River, which was used for transportation of people and goods (Diegues 2007). The decreasing gold deposits in the valley in the end of the eighteenth-century and the discovery of other minerals in the neighbouring state of Minas Gerais resulted in many mine owners and slave owners leaving the area, liberating or abandoning their slaves long before official abolition of slavery in 1888 (Oliveira Jr et al. 2000, Carril 1995). Most former slaves and descendants of slaves stayed in the region practicing subsistence agriculture on bought, donated, inherited or unoccupied

Cultural Village, University of São Paulo (USP) and Federal University of Rio de Janeiro (UFRJ).

[3] The Human-Development Index is a composite measure of life expectancy, education and per capita income. It ranges between 0 and 1, where 0 is low and 1 is high. The average HDI of metropolitan São Paulo is 0,79.

[4] Due to its rich environmental and cultural heritage, the Ribeira Valley was declared a World Natural Heritage site by UNESCO in 1999.

government land, mainly in close vicinity to the Ribeira de Iguape River. These rural Afro-descendant settlements were later denominated *quilombos*.

The construction of highways and railways in the early twentieth-century made the Ribeira de Iguape River lose its importance as a transport medium, ultimately leading to a decline in economic activities upstream where the infrastructure was precarious. Under the military dictatorship (1964-1985), a series of government initiatives were undertaken, aiming at breaking the situation of economic stagnation and poverty. One of the most prominent endeavours was the proposed construction of large hydropower dams on the Ribeira de Iguape River. The first viability study was carried out in 1965 and the State Electrical Company of São Paulo (CESP) proposed the construction of four dams along the river in 1980; the Tijuco Alto on the Paraná stretch in Upper Ribeira, and Itaoca, Funil and Batatal on the São Paulo stretch in Medium Ribeira (Figure 1). The Ribeira de Iguape River is so far the only undammed river in these two states. The Tijuco Alto hydropower dam is destined to generate energy for the privately-owned Brazilian Aluminium Company (CBA) with an expected installed capacity of 144 MW[5]. This project involved the construction of a 142 m tall dam, producing a 5,650 hectares large reservoir (Sevá Filho, Rick, and Minello 2007). The Tijuco Alto project was formally granted concession in 1988 with a validity of 30 years, only days before the promulgation of the new constitution which substantially altered the rules of concession. CESP has requested authorisation to build the Itaoca, Funil and Batatal dams with an overall expected installed capacity of 296 MW and three reservoirs of together 5,400 hectares, but has not yet been granted concession (Bermann 2007). Altogether, the four dams will inundate more than 11,000 hectares of land including *quilombola* communities, agricultural fields, urban areas, protected Atlantic Forest and limestone caves. On the other hand, CBA and the government frame the hydropower dams as being crucial for infrastructure development, employment generation and overall improved life quality of residents as well as for controlling floods. However, in order to control floods, more than one dam has to be constructed (Fearnside 2006).

[FIUGRE 1 HERE]

Justice-seeking strategies by the Movement of People Threatened by Dams

The resurgence of democracy in the 1980s, providing a political opening for social mobilisation, and the engagement of the liberation Catholic Church in the Ribeira Valley were crucial for the formation of MOAB. Although the higher priesthood of the Catholic Church had originally backed the 1964 military coup in fear of Communism, the progressive wing of the Catholic Church emerged as a key pro-democracy voice within civil society in the 1970s as a reaction to the military government's development model and human rights record (Skidmore 2010). The Church's liberation theology movement began to organise and capacitate particularly poor rural communities and in 1986, three Catholic nuns from the Pastoral Catholic Church (*Congregação das Irmãs Jesus Bom Pastor*) arrived in the Ribeira Valley. These religious leaders started to organise biblical studies in the rural Afro-descendant communities located along the Ribeira de Iguape River in the municipality of Eldorado to promote liberation from oppression. Through these studies, community inhabitants began to reflect on their own historical oppression and the contemporary challenges they were encountering. Preoccupations included conflicts with encroaching farmers, the establishment of strictly protected areas limiting local livelihood options, and proposals of dam construction on the Ribeira de Iguape River threatening to inundate their land, agricultural plots and historical

[5] CBA is a subsidiary of the Votorantim Group and is the Brazilian market leader in primary aluminium with a total installed production capacity of 475,000 tons/year and has a metallurgical complex in the municipality of Aluminium (previously Marinique), situated about 300 km from the location of the proposed dam.

buildings (e.g. the church in Ivaporunduva inaugurated in 1791). The reservoir of the Itaoca dam was projected to flood parts of the Afro-descendant communities Cangume and Porto Velho, the Funil dam would inundate the most fertile agricultural areas of Praia Grande, and the Batatal dam would flood parts of Galvão, Ivaporunduva, Nhunguara, André Lopes, Sapatu, Castelano and Abobral (ISA 2002). These dams would impact the food security of the inhabitants of these communities as they practice family farming and are dependent on the Ribeira de Iguape River and its margins for means of subsistence.

The Tijuco Alto dam would not inundate any of the Afro-descendant communities in the Ribeira Valley, but it was likely to alter the river which the residents used for fishing, transport, drinking water, cooking, swimming and bathing. The Tijuco Alto dam was strongly criticised as the generated hydropower would be used exclusively to supply the private CBA's energy-intensive aluminium-smelting (Coelho and Favareto 2008). The economic benefits would therefore accrue to CBA, which was located outside the Ribeira Valley and exported a large share of its aluminium production, while the social and environmental burdens would principally be borne by the inhabitants and the environment of the Ribeira Valley. The sense of injustice deepened community members' outrage at the same time that it deepened their determination to act. In a meeting held in the church in Ivaporunduva in 1989, gathering inhabitants from the rural Afro-descendant communities of Ivaporunduva, São Pedro, Galvão, Nhunguara, André Lopes and Sapatu, it was decided to join forces in opposition to large dams on the Ribeira de Iguape River, so far the only undammed river left in the states of São Paulo and Paraná. This meeting was later marked as the event for the establishment of the Movement of People Threatened by Dams (MOAB), although the movement was officially launched on April 21 1991[6]. Two months later, MOAB organised its first manifestation against the construction of dams in the region together with the Pastoral Land Commission. In August 1999, a mass meeting was held where the document 'Land yes, dam no' (*Terra sim, barragem não*) was elaborated. The title of this document has since been the movement's slogan.

Claims for recognition and resource access

As a strategy against inundation of their land by dam reservoirs, many of the rural Afro-descendant communities along the Ribeira de Iguape River considered to claim recognition as *quilombos*. A *quilombo* status could give collective titles to their lands as stipulated in Article 68 of the Temporary Constitutional Provisions Act and safeguard their cultural rights as laid down in Articles 215 and 216 in the 1988 Constitution. Obtaining land titles and cultural protection, the community members' negotiation power with CBA and the government would be strengthened and they would be better protected against dispossession from their lands. Furthermore, recognition as *quilombos* could aid in legalising residency inside overlapping protected areas and in solving conflicts with encroaching farmers. With assistance from the Catholic Church, MOAB promoted community meetings to discuss the opportunities and challenges of *quilombola* recognition. Initially, many community members were sceptic. The construction of a *quilombola* identity necessitated a recovery of social memory of ancestry and the history of slavery, which had been repressed because of historical traumas and racial discrimination. Many thought it was difficult to reflect on their origin and the history of domination and oppression. However, discussions of community members' forefathers' resistance to slavery and persistence in their territories, spurred valorisation of traditions, customs and knowledge, contributing to build self-esteem and pride for many residents

[6] Obviously, the community members were not homogenously positioned. Some community members supported the dam pointing to job opportunities and benefits of infrastructure development and flood control. Particularly the promise of flood control has been influential as many of the *quilombos* along the Ribeira de Iguape River were severely affected by the 1983, 1995, 1997, 2011, and 2013 floods, destroying roads and bridges and making many lose their homes, agricultural plots, and domestic animals.

(Penna-Firme and Brondizio 2007). No one in the Ribeira Valley had referred to themselves as *quilombola* prior to these discussions, but rather as forest peoples (*povo do mato*) or rural people (*povo da roça*). The construction of a *quilombola* identity in many of the rural Afro-descendant communities in the Ribeira Valley arose as a result of awareness of historical injustices of their forefathers' giving rise to *quilombos'* rights, and the understanding that it could be used to safeguard their livelihood and cultural practices threatened by the dams.

With time, a number of residents started to self-identify as *quilombola* and a few communities decided to request official recognition from the state government with support from the Diocese in Registro, the Pro-Indian Commission and the State Forum for Black Entities. However, since there were no regulations of the Constitution's clause on *quilombos* and no institutions with competence on *quilombos*, MOAB contracted a topographer and an ethnologist with funding from the French Caritas to conduct a pilot study of some selected communities. Ivaporunduva was prioritised as it was the oldest of the *quilombos* and because of its high level of organisation with a great number of Catholic and community leaders and active participation of inhabitants (Oliveira Jr et al. 2000). A preliminary self-demarcation of the territory they occupied was made, and the community filed a lawsuit litigating for recognition as a *quilombola* group with rights to its ancestral land to the Federal Court of São Paulo in 1995.

After the process had lingered, MOAB pleaded the Public Attorney's Office to pressure the state of São Paulo to proceed with the lawsuit and handle the *quilombo* provision. Thus, MOAB did initially address the 'scale of regulation' at the state level (Towers 2000). MOAB could have addressed the federal government, but due to its failure to create an effective *quilombola* titling program, the state was believed to be the most efficient scale for appeal (author, d). This resulted in the Land Institute of São Paulo (ITESP) being delegated the responsibility for recognition and titling. ITESP set up a Special Advisory Group for *Quilombos* in 1996 and established legal instruments dealing with land regulations and technical assistance programs for *quilombos*. Five *quilombola* communities were officially recognised in 1998, which is the first step in getting a land title and access to special programs and technical assistance from the state. This inspired other nearby communities with similar historical backgrounds to formulate demands for recognition and to join MOAB. The experience of the already recognised communities was taken to more isolated communities and MOAB participants distributed information and assisted with establishment of *quilombola* associations. In 2004, the Coordination and Advisory Team for Black and *Quilombola* communities in the Ribeira Valley (EEACONE) was established as the legal formalised part of MOAB providing legal assistance to *quilombos*. Since then, EEACONE has helped *quilombolas* acquire birth certificates, identity cards, and to register their civil statuses, permitting access to citizenship and social programs.

With the awareness of citizen rights, the 'scale of meaning' broadened (Towers 2000). Injustices were not only associated with threats posed by the planned dams, but it was a problem that the community members had been excluded from access to public programs, social services and infrastructure development. Particularly *quilombola* women, who had participated in the establishment of a parallel Women's movement, were instrumental in voicing demands for improvements of public services including health posts, schools, transport, freshwater-supply to households, sanitation, electricity, and initiation of alternative income generating activities from the local government. The demands for *quilombola* recognition at the state level were therefore quickly complemented with claims for access to citizen rights at the local level, connecting their cultural claims with economic and social claims (Banerjee 2014). Many of the raised demands have been fulfilled over the years through assistance from the local government, but also from the state and federal government and NGOs. Access to many of the communities have been improved by building of roads and a bridge crossing the Riberia de Iguape River, and many communities have received electricity and water supply, which has giving particularly the women more time to engage in activities outside the household. Indoor water supply has further facilitated the construction of

bathrooms and toilets inside the houses, improving the health conditions of community residents. Moreover, a school with differentiated education tailored for *quilombolas* has been established, school transport has been provided, and many income generating activities have been initiated (Santos and Tatto 2008).

Networking and political mobilisation

During the nascent stages of MOAB, active members of the Church and participants in multiple community organisations played a key role in recruiting and mobilising other *quilombolas*, helping to 'get the movement off the ground' (Harvell and Welch 2005: 12). MOAB therefore emerged out of pre-existing social networks in line with resource mobilisation theory asserting that it is the most socially connected people (not the most alienated) who are most likely to be mobilised into movement participation (Taylor 2000). Nevertheless, MOAB started early on to build alliances with other segments of civil society and with government agencies to strengthen the anti-dam campaign. The *quilombolas* and the religious leaders did initially not have much knowledge of large dams, so with help from the Church, the Pro-Indian Commission and other allies, MOAB organised travels to places where dams had already been built. A *quilombola* leader reflected on these travels in an interview:

> The Company [CBA] presented a fantasy discourse saying that the construction of hydropower dams would generate employment, would control floods of the Ribeira River, and this to a region that has one of the lowest HDI in Brazil. When you sell this false illusion, you end up gaining wide support because the population is unemployed. And no one knew what a dam was and much less what impacts the construction would cause to the lives of inhabitants. That's why many of our leaders left to get to know other realities in Porto Primavera in Paraná, Tucuruí in Pará, Itaparica in Pernambouco and Bahia where there were people who had already gone through this process… And the reality that they saw there was completely different to what the company was selling here. Families had lost everything they had, their land inherited for generations. They had lost ties to family members, neighbours, friends, and few had received compensation […].

Networking with dam-affected people throughout Brazil contributed to the broadening of the *quilombolas'* perception of the scale of the problem of dams. MOAB participants came to understand that proposals of dam construction were not only a local problem in the Ribeira Valley but that large dams had already affected numerous people and ecosystems around Brazil and were threatening to affect more. The identification of national patterns of distributional injustice contributed to the idea of gathering regional anti-dam movements' struggles and experiences (Sneddon and Fox 2008). MOAB representatives participated in the meeting of the foundation of the national Movement of Dam-Affected People (MAB) in 1991, which brought many militant particularism movements in Brazil together. MAB's head office was shortly after opened in São Paulo and has since then grown to become a strong popular and autonomous social movement with representatives in 19 out of the 27 Brazilian states (Barboza 2006). The active engagement of *quilombola* leaders from the Ribeira Valley in the organisation and running of MAB aided in strengthening MOAB's network with other regional anti-dam movements and also the global anti-dam movement, in part through participation in international conferences. A MOAB participant who has also worked in MAB reflected on the importance of networking in an interview:

> MAB came with the proposal of unification of all these movements that were scattered throughout Brazil, logically without losing the importance of the accomplishments of each and every regional movement. MOAB in the Ribeira Valley was no longer alone because the network strengthened. A kick that a dam-affected got in Tucuruí in Pará, we felt here. So this unity was very important for the movement to strengthen on the national level […].

As the scale of meaning expanded geographically, MOAB's concerns with large dams became framed as an element of a larger struggle and its strategies to address the problem changed accordingly (Urkidi and Walter 2011). In addition to forming alliances with other dam-affected people around the country and globally, MOAB started to collaborate with other sections of civil society and also government agencies. For instance, the NGO SOS Atlantic Forest became an important ally although it had conflicting interests with *quilombolas* in the implementation of strictly protected areas (many of which overlapped *quilombo* lands). The involvement of this NGO was crucial in delegitimising the preliminary license of the Tijuco Alto dam issued by the state environmental offices in São Paulo and Paraná in 1994/1995. After a public civil action bringing together the SOS Atlantic Forest, MOAB and other civil society organisations, parliamentarians and lawyers, the Public Attorney's Office filed a lawsuit claiming that a federal authority had to issue the license as the Ribeira de Iguape is a federal river running through two states. This culminated in the suspension of the already granted license in 1999 and the transfer of the licensing authority to the federal environmental control agency (IBAMA) (Bermann 2007). Two subsequent licensing petitions were later dismissed by IBAMA due to the lack of an evaluation of potential impacts of the complex of hydroelectric dams planned in the same hydrographic basin. This was absent both in the original Environmental Impact Assessment (EIA) from 1989 and in the renewed EIA published in 2005. The 2005 EIA had been carried out by the consultancy company CNEC Engineering after CBA had renewed and slightly improved the project (Sevá Filho, Rick, and Minello 2007). The change of the scale of regulation for the licensing process from the state level to the federal level thus created an obstacle for CBA to obtain a preliminary license (Towers 2000).

The founders of SOS Atlantic Forest also participated in the foundation of the Ribeira Valley Program in the Brazilian socio-environmental NGO *Instituto Socioambiental* (ISA), bringing with them the anti-dam campaign. ISA came to play a crucial role in expanding MOAB further through alliance-building with movements and unions of family agriculture[7] and the Environmental Defence and Studies Centre in Paraná. The mobilisation of family farmers was mainly linked to the felt impacts of the Tijuco Alto dam in Upper Ribeira even though it had not been constructed. The fact was that between 1988 and 1997, CBA had bought 379 rural properties hosting 286 families, accounting for 60 percent of the projected inundated area (Itapura de Miranda 2006). According to Jeronomy (2007), this resulted in a displacement process and affected public investments in health, education, transport and public lighting leading to breakdown of community economic dynamics, significantly impacting inhabitants in the municipalities of Cerro Azul and Adrianópolis. ISA also established contact with the Brazilian Society of Speleology due to the threats of inundation of caves under legal protection posed by the Tijuco Alto reservoir, including the cave *Gruta da Rocha,* which had been given maximum protection due to a newly discovered scorpion species. This served to mobilise speleologists all over the country.

In 2005, ISA contracted researchers from the University of Campinas and São Paulo to carry out an independent analysis of the Tijuco Alto and the other planned dams as an alternative information channel to the 2005 EIA (Sevá Filho et al. 2007). For instance, the 2005 EIA states that the Tijuco Alto dam will cause no impact downstream and is the reason why the impact assessment stops in the city of Registro and not in Iguape, where the river enters the Atlantic Ocean (CBA 2005). By contrast, the independent researchers pointed to how the interruption of the river course will change the water flow, increase sedimentation and deteriorate water quality, provoking alterations of aquatic species diversity and composition (Bermann 2007, Sevá Filho, Rick, and Minello 2007). Indigenous peoples, traditional *caiçara* fishers and other coastal populations that depend on fishing and marine extraction in the estuary Lake Complex of Iguape-Cananéia-Paranaguá will therefore likely be affected by dam construction upstream. Furthermore, the inundation of soils in the Upper Ribeira which hold large deposits of lead and other heavy metals,

[7] These included the national Landless Movement (MST), the national federation of family agriculture (FETRAF), the unions of family farmers ASSTRAF, SINTRAF and SindiSeab in Paraná.

originating from past mining operations, will probably cause acidification of the water, aggravating the already serious contamination of the local population[8] (Paoliello et al. 2002). Risks of earthquakes were also emphasised due to the tremendous weight of the water stored in the dam reservoir over a fragile karst layer (ISA 2002, Bermann 2007, Sevá Filho, Rick, and Minello 2007). Through the involvement of NGOs, MOAB was able to link its social justice struggle to the theme of environmental conservation, and establish coalitions with both environmental and social grassroots movements and scientists providing invaluable support in the form of mobilisation, campaigning, dissemination, funding and technical expertise (Sneddon and Fox 2008).

With assistance from NGOs, movement groups' and academic institutions, MOAB initiated an awareness-raising campaign in an attempt to shift the general supportive opinion of the population of the Ribeira Valley to dams. MOAB produced and disseminated monthly newsletters and pamphlets, and anti-dam campaigns were launched on the websites of the NGOs EEACONE and ISA, and on the 'Land yes, dam no' blog. Here, the movement criticises the scientific basis for dam policy and point to many alternatives to the projected development of the Ribeira Valley. *Quilombolas* have themselves initiated a number of income generating initiatives such as production, commercialisation and processing of banana, honey and palm hearts, ecotourism projects and formation of tourist guides, traditional agriculture projects and handicraft projects (Santos and Tatto 2008). MOAB does not reject development per se, but criticises the dominant direction and meaning of development in Brazil which has exploited, excluded and marginalised local people. MOAB thereby frame the problem of large dams as being linked to the problem of the dominant development model in Brazil. As an alternative to the construction of large dams and privatisation of the public Ribeira de Iguape River, MOAB advocates for socially just and ecologically responsible energy production. It proposes a policy with a new energetic model that prioritises socio-environmental issues, drawing attention to development of alternative energy sources like biomass, solar energy, wind power and small dams in suitable locations where the criteria are established by the local population. MOAB also supports a more just distribution through democratisation of the energy politics which is similar to MAB's proposal of energy democracy, indicating that MOAB has framed alignments with the national anti-dam movement.

MOAB's awareness campaign contributed to a popularisation and consequently a strengthening of the movement, which has developed a number of actions in defence of the Ribeira Valley. Protest rallies have been arranged in the cities of São Paulo, Adrianópolis and Registro as well as a 6-day march along the stretch between the cities of Cerro Azul and Iguape, mobilising people living along the river margins of Ribeira de Iguape. Moreover, a 9 km march on the highway BR-116 from the cities of Cajati to Jacupiranga and the closing of the toll station in Cajati on the same highway for two hours contributed to a wide dissemination of MOAB's concerns with large dams. In many of these protest rallies and other pacific manifestations organised by MOAB, a number of claims have been raised in addition to a focus on 'Land yes, dam no'. These include nature conservation schemes allowing for human occupation and sustainable use of natural resources, access to social services, strengthening of human and labour rights and participation in political processes, programs and institutions. The initial resistance against the dam project and the subsequent claims for *quilombola* recognition and territorial rights have thus become more complex over the years, broadening the scale of meaning and the scope of the *quilombolas'* struggle.

Claims for Transparency and Participation

As highlighted by Young (1990) and Fraser (1998), injustice in the social sphere is not only about local cultures and ways of life being ignored, dismissed and disrespected, but it is also about how local communities are excluded from decision-making processes. One of the main criticisms raised by MOAB has been local people's exclusion from decision-making and the lack of consultation

[8] Extensive research indicate that the population of the Ribeira Valley has comparably higher indices of lead in their blood than people in reference regions.

about the planned dams, the lack of involvement of local people in the undertaking of the EIA, lack of access to this study after completion and the lack of public hearings. According to Brazilian regulation, public hearings have to be organised to present and discuss the EIA with affected communities if deemed necessary by the environmental agency, or if requested by the Public Attorney's Office or by more than 50 citizens. Misrecognition of *quilombolas'* material and cultural dependence on the river and their land and the lack of involvement are recurrent themes in interviews. Many informants complained that no one had ever come to their communities to explain about the plans of dam construction, potential impacts or compensation measures. This is exemplified by a statement made by a *quilombola* women: 'We realise that they do not take us into consideration. Because if they had considered us, they would have come here and opened a dialogue with the community'.

As a reaction to the misrecognition and devaluation of their long-standing ways of life threatened by the planned dams and the institutionalised exclusion, MOAB tried to establish dialogue with CBA and the government. Since MOAB was not able to get access to these organs, it organised occupations of the office buildings of CBA and IBAMA in São Paulo and the Ministry of Environment, the Ministry of Mines and Energy, the National Agency of Electric Energy and the headquarter of IBAMA in the capital of Brasília, often on the international day of actions against dams on 14 March. For instance, an occupation of IBAMA's headquarter was arranged after finalisation of the 2005 EIA of Tijuco Alto, since access to this study had not been provided and no public hearings had been organised. This resulted in 25 *quilombola* leaders being allowed to enter. Upon request from MOAB participants, IBAMA agreed to hold public hearings in the cities of Cerro Azul in Paraná and Ribeira, Adrianópolis, Eldorado and Registro in São Paulo. The public hearings took place between 6–10 July 2007. The short time span and the long distances between the locations were believed by MOAB participants to be a strategy of CBA to limit the attendance and thereby undermine the opposition to the undertaking as no transportation had been arranged for by the company. However, MOAB had prepared transport and food for a large number of people and managed to be present in all the hearings. Before the hearings, CBA offered barbeque to its potential supporters and distributed ready-made posters in favour of the dam. Another strategy to promote Tijuco Alto was the agenda of the public hearings where arguments in favour of the dam project were presented first through long presentations held in technical language, which resulted in many people leaving early. Questions from civil society were left to the end of the hearings, which in some instances lasted more than 10 hours. Still, almost 60 percent of all the speeches held in the hearings, from the panel and the audience, opposed the undertaking (Souza 2009).

The largest representation of MOAB participants was in the city of Eldorado where MOAB has its office. Principally in this public hearing, allies and sympathisers of the movement participated, making up more than 1000 people. IBAMA invited CBA, CNEC Engineering, the Ministry of Environment, the Ministry of Mines and Energy and a deputy in favour of the Tijuco Alto dam to the panel as well as a *quilombola* representative. In the other public hearings, no such invitation had been made to any 'threatened'. A *quilombola* leader from Ivaporunduva greeted the panel but said that he would leave in opposition arguing that he had not been invited in the process earlier on. He stated that at no point had *quilombolas* been consulted by the undertaker (CBA), the consulting company contracted to carry out the EIA (CNEC Engineering) or the licensing organ (IBAMA) in the undertaking of the EIA, and he did not want to be included at this stage in order to stage a performance of an inclusive process.

Based on comments and concerns raised during the public hearings, MOAB prepared a report highlighting flaws in the EIA and the licensing process and sent it to IBAMA. Once again, MOAB did not get a reply and organised yet another mass occupation of IBAMA's office in São Paulo in 2008. IBAMA promised to analyse the questions raised by the movement and to hold an additional public hearing in the coastal city of Cananeia, due to the likely impacts of the dam also downstream of Registro. Interviewees talk about this event with proudness and at the same time

resignation that so much time and resources had to be spent in order to get access to a public organ. For years, numerous acts and attempts have been made to establish dialogue with IBAMA but only by direct action, such as protests and occupations, has MOAB managed to get access to the technical team and directory. *Quilombola* leaders also mentioned the importance of meetings with local, state and national politicians and lawmakers behind the scenes to seek support for their demands of transparency and participation (Taylor 2000). Despite MOAB's efforts, IBAMA emitted a technical opinion favourable to Tijuco Alto in 2008, stating that the hydropower project would bring more benefits than disadvantages. Also the Palmares' Cultural Foundation, supposed to act in the interest of *quilombos*, gave a favourable opinion to the undertaking in 2012. This was contested in a public hearing in May 2013 demanded by MOAB and ISA as no prior consultations had been carried out with any of the *quilombola* communities in the region. Through pressure by the national *Quilombola* Movement, *quilombolas* have been categorised as 'tribal peoples' and have therefore the right to prior consultation according to the legally binding ILO convention 169 on Indigenous and Tribal Peoples, ratified by Brazil in 2002 (ISA 2013). This resulted in the withdrawal of Palmares' Cultural Foundation's favourable opinion. At the time of writing, still no consultations had been held with *quilombolas,* while the Tijuco Alto project was being kept on hold.

Conclusion

MOAB's anti-dam campaign began from an instance of 'militant particularism', as conceptualised by Harvey (1996), by mobilising *quilombolas* around livelihood and socioecological issues at the local scale. One of the first strategies against dams was for the Afro-descendant communities threatened by the dam projects to claim recognition as *quilombos* as a way to obtain land rights to land. The four proposed dams on the Ribeira de Iguape River were initially seen to be a local problem, but through visits to other places in Brazil and exchanges with dam-affected communities, MOAB quickly broadened the participants' perception of the scale of the problem. Large dams had already been built elsewhere in Brazil and the rest of the world with detrimental impacts on both people and the environment, and many more were planned without the involvement of the public in decision-making, in the undertaking of EIAs or in the sharing of benefits. As MOAB participants engaged in networks with other dam-affected peoples and movements, the impacts and processes of dam construction came to be framed as a problem of capitalism's 'accumulation by dispossession' backed by a national and transnational regulatory framework (Urkidi and Walter 2011). The expanded scale of meaning of large dams contributed to radicalise MOAB's visions of an alternative development model and energy democracy. It also served to expand the movement's agenda to include distributive and procedural justice and adopt new strategies to influence the scale of regulation.

Through its expanded network, quilombolas became aware of different opportunities in the legal and regulatory frameworks for civil rights, ethnic *quilombola* rights and environmental and consultation procedures. Depending on the framing of the problem, either linked to misrecognition, lack of access to citizen rights or lack of participation, MOAB addressed different scales of government for recourse (Kurtz 2003). At the outset of movement formation, communities appealed to state regulatory institutions to claim *quilombola* recognition and land rights and to the local government to claim citizen rights. Together with allies, MOAB did also early on participate in a public civil action contesting the preliminary license of Tijuco Alto emitted by environmental agencies at state level in São Paulo and Paraná. When the scale of regulation for licensing shifted from the state to the federal level, CBA faced increasing difficulties in obtaining a preliminary license due to the stricter criteria for evaluation of the EIA. Later, MOAB addressed federal authorities to challenge the exclusionary decision-making and regulatory processes of CBA and IBAMA, demanding access to the EIA and realisation of public hearings. The flagging of

quilombolas' rights to prior consultation according to the International Labour Organisation's convention 169, offered another compelling scale of regulation at which to frame arguments for participation. MOAB thereby expanded the scale of its protests by targeting national and international regulatory procedures for transparency, public hearings and prior consultation (Towers 2000).

The explanations for this scale transformation, from contesting local injustices to challenge state, national and international political structures, include the growth of networks and the articulation of MOAB's claims at multiple scales (Sikor and Newell 2014, Haarstad and Floysand 2007). MOAB formed coalitions with other traditional communities, family farmers, unions, movements, NGOs, government agencies, politicians and lawyers from different geographical localities, allowing mobilisations to go beyond the Ribeira Valley. Over time, these networks grew and strengthened, and actions at national and international scales became more frequent (Urkidi and Walter 2011). As MOAB's anti-dam campaign quickly became a complex imbrication of multiple actors, claims and strategies (Sneddon and Fox 2008), it transcended what Harvey (1996) perceives as a narrow focus on the local or on a particular political objective. While MOAB has 'scaled up' its struggle advocating for energy democracy and an alternative development model, it still takes action at the local scale and continues to use early strategies based on litigation and claims for *quilombola* recognition and claims for citizen rights. It has therefore managed to embrace both the grassroots and higher scales by being both militant and visionary (Williams 1999, Szasz 1994). Harvey's warning about militant particularism and their avoidance of national and international politics are therefore not reflective of MOAB's multi-scalar strategies. A pure focus on the local or global fails to describe the multi-scalar character of MOAB's strategies and actions in line with the research findings of many other scholars (Towers 2000, Kurtz 2003, Sneddon and Fox 2008, Urkidi and Walter 2011).

Based on the findings of this case study, two main conclusions about the environmental justice dimensions and politics of scale can be outlined. Firstly, demands for recognition, distribution and participation were expressed in intertwined ways (Urkidi and Walter 2011, Schlosberg 2004, Banerjee 2014). Claims for recognition of a *quilombola* identity were raised together with claims for land rights and rights to prior consultation and claims for procedural justice were expressed together with demands for recognition of diversity of needs, recognition of the ethnic identity of *quilomboa* and citizen rights. This supports the argument that the three dimensions of environmental justice are inseparable (Schlosberg 2004, 2007). Secondly, MOAB moved beyond a 'militant particularism' by framing the meaning of the problem at different scales and by invoking a range of geographical scales to mobilise its claims for recognition, access to resources and procedural justice. At the frame of the local, MOAB argued that there was a lack of recognition and distributive justice in the ways CBA and the government have promoted dams. At the frame of the national, MOAB argued that there was a lack of procedural justice in the ways CBA and CNEC Engineering had undertaken the EIA and questioned the lack of public hearings and prior consultations.

MOAB's intertwined demands and strategies for access to resources at the local scale, recognition at the state level and procedural justice at the national and international level have in part contributed to the Tijuco Alto project being put on hold for 27 years, making the licensing process of this dam one of the slowest in Brazil. If the Tijuco Alto dam is granted a preliminary license before the concession expires in 2018, some technical improvements have been made to the project which slightly reduces its socio-environmental impacts. Furthermore, MOAB's strategies for recognition have resulted in 25 *quilombola* communities having been officially recognised of which six have obtained land titles, strategies for distributive justice have resulted in many *quilombolas* getting access to social services and infrastructure development and strategies for procedural justice have ensured access to powerful political bodies, the realisation of public hearings and the promise of prior consultations. Lastly, MOAB's networking activities and collective actions have drained

legitimacy of CBA, CNEC Engineering and IBAMA and catalysed the withdrawal of support from residents and local politicians as well as people holding important positions at higher levels, important for future mobilisations against dams on the Ribeira de Iguape River. Based on the outcomes of MOAB's justice-seeking strategies, my concluding argument is that this anti-dam movement has been successful in linking different scales of meaning with relevant scales of regulation.

References

Acselrad, H. 2008. "Grassroots reframing of environmental struggles in Brazil." In *Environmental justice in Latin America: Problems, promise, and practice*, edited by D. Carruthers, pp. 75-97. Cambridge: MIT Press.

Andrade, A. M., and N. Tatto. 2013. *Inventário cultural de quilombos do Vale do Ribeira*. São Paulo: Instituto Socioambiental.

Banerjee, D. 2014. "Toward an Integrative Framework for Environmental Justice Research: A Synthesis and Extension of the Literature." *Society & Natural Resources* 27 (8):805-819. doi: 10.1080/08941920.2014.905892.

Barboza, L. S. 2006. Identidate e Movimentos Sociais: o caso do Moviemento dos Atingidos por Barragens. Rio de Janeiro: UFRJ.

Bermann, C. 2007. "Impasses and controversies of hydroelectricity." *Estudos Avançados* 21 (59):139-153.

Bickerstaff, K., and J. Agyeman. 2009. "Assembling Justice Spaces: The Scalar Politics of Environmental Justice in North-east England." *Antipode* 41 (4):781-806.

Cardoso, R. C. L. 1992. "Popular movements in the context of the consolidation of democracy in Brazil." In *The Making of Social Movements in Latin America: Identity, Strategy, and Democracy*, edited by A Escobar and S. E. Alvarez, 291-302. Boulder: Westview Press.

Carril, L. F. B. 1995. "Terras de negros no Vale do Ribeira: Territorialidade e resistência." Master, FFLCH, University of São Paulo.

Carruthers, D. V. 2008. *Environmental justice in Latin America: problems, promise, and practice*. Cambridge, Mass.: MIT Press.

CBA. 2005. Relatório de Impacto Ambiental - RIMA. Usina Hidrelétrica Tijuco Alto. São Paulo: Companhia Brasileira de Alumínio.

Coelho, V. S. P., and A. Favareto. 2008. "Questioning the relationship between participation and development: A case study of the Vale do Ribeira, Brazil." *World Development* 36 (12):2937-2952.

Culver, D. C., and T. Pipan. 2009. *The biology of caves and other subterranean habitats*. Oxford: Oxford university press.

Dagnino, E. . 2005. "'We all have rights, but...' Contesting concepts of citizenship in Brazil." In *Inclusive Citizenship: Meanings and Expressions*, edited by N. Kabeer, pp. 149-163. London: Zed Books.

Diegues, A. C. 2007. O Vale do Ribeira e litoral de São Paulo: meio-ambiente, história e população. São Paulo: CENPEC.

Escobar, A., and S. E. Alvarez. 1992. *The Making of social movements in Latin America: identity, strategy, and democracy*. Boulder, Colo.: Westview Press.

Fearnside, Philip M. 2006. "Dams in the Amazon: Belo Monte and Brazil's Hydroelectric Development of the Xingu River Basin." *Environmental Management* 38 (1):16-27.

Fraser, N. 1998. "Social justice in the age of identity politics: Redistribution, recognition, and participation." *The Tanner Lectures on Human Values* 19:2-67.

Haarstad, H., and A. Floysand. 2007. "Globalization and the power of rescaled narratives: a case of opposition to mining in Tambogrande, Perú." *Political Geography* 26:289-308.

Harvell, V. G., and S. Welch. 2005. "Social movement theory and black women's political activism." *Proteus* 22 (1):12-18.

Harvey, D. 1996. *Justice, nature and the geography of difference*. Cambridge, Mass.: Blackwell.

Hogan, D. J., R. L. Carmo, H. P. F. Alves, and I. A. Rodrigues. 1999. "Sustentabilidade no Vale do Ribeira (SP): conservacão ambiental e melhoria das condições de vida da população." *Ambiente & Sociedade* 3-4:151-175.

Holifield, R. 2015. "Environmental justice and political ecology." In *The Routledge handbook of political ecology*, edited by T. Perreault, G. Bridge and J. McCarthy, 585-597. London: Routledge.

ISA. 2002. Tijuco Alto: Saiba porque ela não interessa ao Vale do Ribeira. São Paulo: Instituto Socioambiental.

ISA. 2013. "Title." *Blog do Vale do Ribeira*.

Itapura de Miranda, Z. A. 2006. "Licenciamento de grandes barragens para fins energéticos: o processo de tomada de decisão e o princípio da precaução." III Encontro da ANPPAS, Brasília.

Jeronomy, A. C. J. 2007. "Desolcamento de populações ribeirinhas e passivos sociais e econoômicos decorrentes de

projetos de aproveitamento hidrelétrico: a UHE Tijuco Alto/SP-PR. ." Master, University of São Paulo.
Klein, Peter Taylor. 2015. "Engaging the Brazilian state: the Belo Monte dam and the struggle for political voice." *The Journal of Peasant Studies* 42 (6):1137-1156. doi: 10.1080/03066150.2014.991719.
Kurtz, H. E. 2003. "Scale frames and counter-scale frames: constructing the problem of environmental injustice." *Political Geography* 22:887-916.
Martins, S. d. S., C. A. Medeiros, and E. L. Nascimento. 2004. "Paving paradise: the road from "racial democracy" to affirmative action in Brazil." *journal of Black Studies* 34 (6):787-816.
McCormick, S. 2006. "The Brazilian Anti-Dam Movement: Knowledge Contestation as Communicative Action." *Organization & Environment* 19 (3):321-346.
Oliveira Jr, A. N., D. Stucchi, M. F. Chagas, and S. S. Brasileiro. 2000. "Comunidades negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria Rosa e Pilões." In *Negros do Ribiera: Reconhecimento étnico e conquista do território*, edited by T. Andrade, C. A. C. Pereira and M. R. Oliveira Andrade, pp. 39-192. São Paulo: ITESP.
Pahnke, Anthony, Rebecca Tarlau, and Wendy Wolford. 2015. "Understanding rural resistance: contemporary mobilization in the Brazilian countryside." *The Journal of Peasant Studies* 42 (6):1069-1085. doi: 10.1080/03066150.2015.1046447.
Paoliello, Monica Maria Bastos, Eduardo Mello De Capitani, Fernanda Gonçalves da Cunha, Tiemi Matsuo, Maria de Fátima Carvalho, Alice Sakuma, and Bernardino Ribeiro Figueiredo. 2002. "Exposure of Children to Lead and Cadmium from a Mining Area of Brazil." *Environmental Research* 88 (2):120-128. doi: http://dx.doi.org/10.1006/enrs.2001.4311.
Penna-Firme, R., and E. Brondizio. 2007. "The risks of commodifying poverty: Rural communities, *quilombola* identity and nature conservation in Brazil." *HABITUS* 5 (2):355-373.
PNUD. 2013. Índice de Desenvolvimento Humano Municipal Brasileiro. Brasília: Programa das Nações Unidas para o Desenvolvimento
Porto, M. F., T. Pacheco, and J.P. Leroy. 2013. *Injustiça ambiental e saúde no Brasil: o mapa de conflitos*. Rio de Janeiro: Fiocruz.
Santilli, J. 2005. *Socioambientalismo e novos direitos: orientação jurídica e diversidade biológica e cultural*. São Paulo: Peirópolis.
Santos, K. M. P. , and N. Tatto. 2008. *Agenda socioambiental de comunidades Quilombolas do Vale do Ribeira*. São Paulo: Instituto Socioambiental.
Schlosberg, D. 2004. "Reconceiving environmental justice: global movements and political theories." *Environmental Politics* 13 (3):517-540.
Schlosberg, D. 2007. *Defining environmental justice: Theories, movements, and nature*. Oxford: Oxford University Press.
Sevá Filho, A. O., A. T. Rick, and C. P. Minello. 2007. Parecer independente sobre o licenciamento ambiental do projeto da Hidrelétrica Tijuco Alto, no rio Ribeira do Iguape (Paraná - São Paulo) e sobre seus riscos para o povo e sua região. São Paulo: Instituto Socioambiental.
Sikor, T., and P. Newell. 2014. "Globalizing environmental justice?" *Geoforum* 54 (0):151-157. doi: http://dx.doi.org/10.1016/j.geoforum.2014.04.009.
Skidmore, T. E. 2010. *Brazil: five centuries of change*. Oxford: Oxford University Press.
Sneddon, C., and C. Fox. 2008. "Struggles Over Dams as Struggles for Justice: The World Commission on Dams (WCD) and Anti-Dam Campaigns in Thailand and Mozambique." *Society & Natural Resources* 21 (7):625-640. doi: 10.1080/08941920701744231.
Souza, A. 2008. "The Gathering Momentum for Environmental Justice in Brazil." *Environmental Justice* 1 (4):183-188. doi: 10.1089/env.2008.0516.
Souza, A. N. 2009. "Licenciamento ambiental no Brasil sob a perspectiva da modernização ecológica." University of São Paulo.
Szasz, Andrew. 1994. *EcoPopulism: toxic waste and the movement for environmental justice*. Minneapolis, Minn.: University of Minnesota Press.
Tatto, N. 2014. "Title." *Blog do Vale do Ribeira*.
Taylor, D. E. 2000. "The rise of the environmental justice paradigm. Injustice framing and the social construction of environmental discources." *American Behavioural Scientist* 43 (4):508-580.
Towers, G. 2000. "Applying the political geography of scale: grassroots strategies and environmental justice." *Professional Geographer* 52 (1):23-36.
Urkidi, L., and M. Walter. 2011. "Dimensions of environmental justice in anti-gold mining movements in Latin America." *Geoforum* 42 (6):683-695. doi: http://dx.doi.org/10.1016/j.geoforum.2011.06.003.
Walker, G. 2009. "Globalizing environmental justice. The geography and politics of frame contextualization and evolution." *Global Social Policy* 9 (3):355-382. doi: 10.1177=1468018109343640.
Walker, G., and H. Bulkeley. 2006. "Geographies of environmental justice." *Geoforum* 37 (5):655-659.
Williams, Robert W. 1999. "Environmental injustice in America and its politics of scale." *Political Geography* 18

(1):49-73. doi: http://dx.doi.org/10.1016/S0962-6298(98)00076-6.
Wolford, Wendy. 2010. *This land is ours now: social mobilization and the meanings of land in Brazil*. Durham [NC]: Duke University Press.
Young, I. M. 1990. *Justice and the politics of difference*. Princeton, N.J.: Princeton University Press.

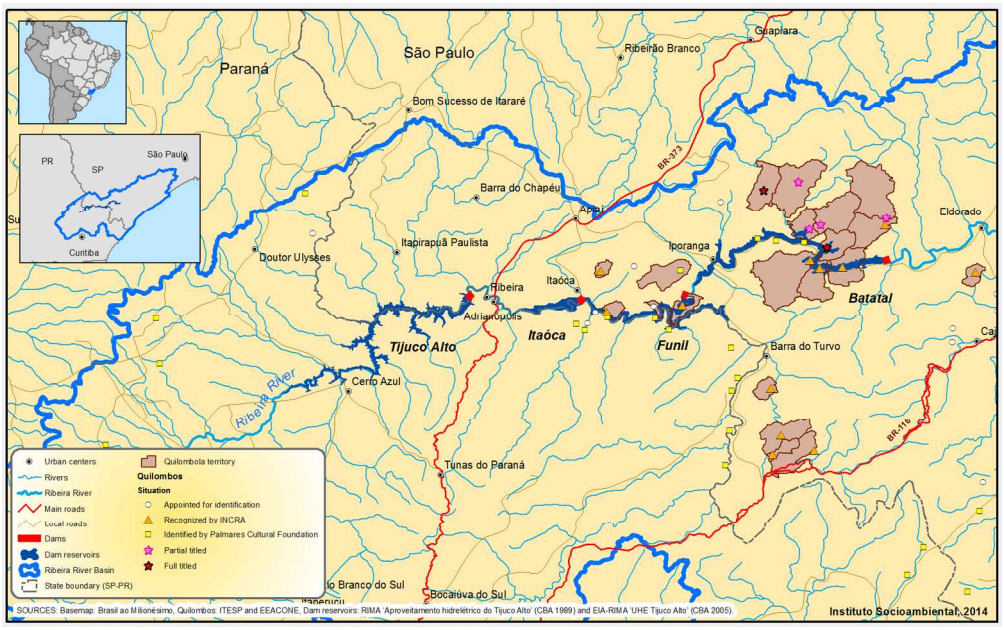


Figure 1: Position of the four planned dams on the Ribeira de Iguape River; Tijuco Alto, Itaóca, Funil and Batatal with projected flooded areas in dark blue. Quilombola territories are highlighted in brown (Source: Translated version of map published in Tatto (2014). Permission to reuse has been pertained from the rightsholder © [Instituto Socioambiental].

160x99mm (300 x 300 DPI)

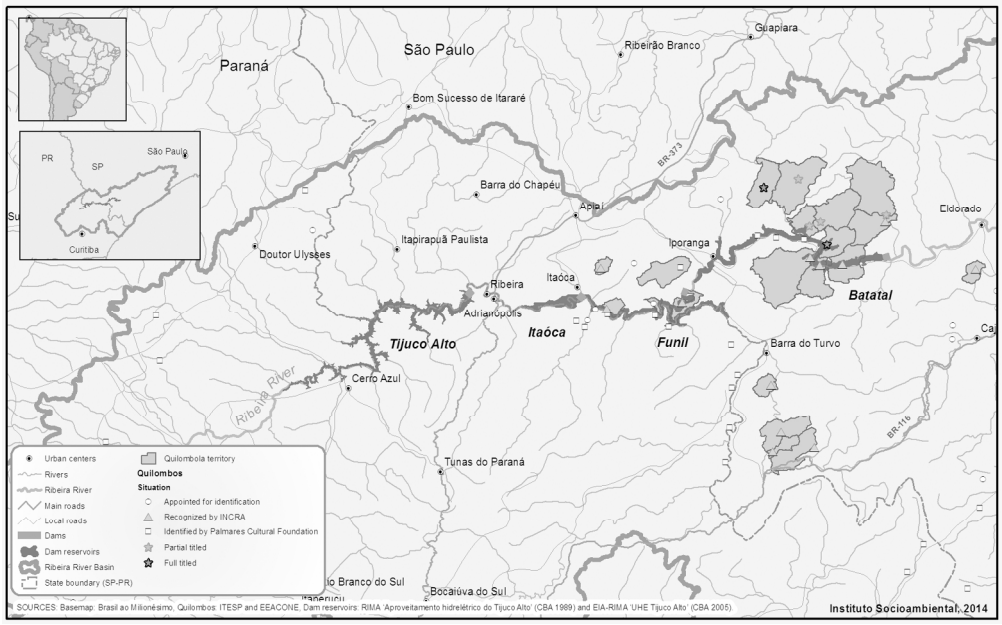


Figure 1: Position of the four planned dams on the Ribeira de Iguape River; Tijuco Alto, Itaóca, Funil and Batatal with projected flooded areas in dark blue. Quilombola territories are highlighted in brown (Source: Translated version of map published in Tatto (2014). Permission to reuse has been pertained from the rightsholder © [Instituto Socioambiental].

160x99mm (300 x 300 DPI)

Figure caption

Figure 1: Position of the four planned dams on the Ribeira de Iguape River; Tijuco Alto, Itaóca, Funil and Batatal with projected flooded areas in dark blue. *Quilombola* territories are highlighted in brown (Source: Translated version of map published in Tatto (2014). Permission to reuse has been pertained from the rightsholder © [*Instituto Socioambiental*].

Annexes

Annex 1: Paper 2 Translated into Portuguese

Mudanças Socio-Ecológicas em uma Comunidade Quilombola na Mata Atlântica do Sudeste do Brasil

Kjersti Thorkildsen[1]

Este artigo foi publicado originalmente em inglês na revista Human Ecology (2014) 42:913-927.

Resumo Através de uma abordagem que combina ciclos adaptativos e ecologia política, o presente artigo explora como os quilombolas de Bombas, vivendo no interior da área protegida do Petar, respondem e moldam mudanças socio-ecológicas na Mata Atlântica. Dados de campo mostram que restrições ambientais, políticas sociais de transferência de renda e cestas básicas contribuem para a diminuição da participação em práticas agrícolas, perda de conhecimento tradicional e redução da agrobiodiversidade. A reivindicação de direitos territoriais baseada na identidade quilombola e negociações recentes com autoridades florestais sugerem uma mudança nessa tendência. Contrariamente às narrativas dominantes de conservação, os resultados indicam que práticas de agricultura de coivara de pequena escala pelos quilombolas têm o potencial de aumentar a complexidade ecológica estrutural da Mata Atlântica. O artigo argumenta que a regularização fundiária e das atividades de subsistência é importante não apenas para a segurança do modo de vida e da coesão social dos habitantes de Bombas, mas possivelmente também para a conservação da biodiversidade.

Palavras-chave Quilombola · Agricultura de coivara · Mata Atlântica · Conservação da biodiversidade · Brasil

[1] K. Thorkildsen
Department of International Environment and Development studies/Noragric,
Norwegian University of Life Sciences, P.O. Box 5003
NO-1432 Ås, Norway
e-mail:kjersti.thorkildsen@nmbu.no

Introdução

O tema dos quilombos[2] entrou na cena política brasileira com a promulgação da renovada e mais democrática Constituição Federal de 1988, após o fim do regime militar (1964–1985). Com o artigo 68 do Ato das Disposições Constitucionais Transitórias, remanescentes de comunidades quilombolas foram pela primeira vez reconhecidos como legítimos proprietários das terras que ocupavam (Rapoport Center 2008). Várias comunidades quilombolas estão situadas no Vale do Ribeira, Estado de São Paulo, sudeste do Brasil, cujas histórias estão ligadas à introdução do uso de escravos na extração de ouro durante o século XVI (Queiroz 1983; Oliveira Jr *et al.* 2000). Com a queda da extração mineral no início do século XVIII, o Vale do Ribeira se tornou uma região de escravos libertados ou abandonados mais cedo do que em outras partes do país[3] (Castro *et al.* 2006; Diegues 2007). De acordo com a Equipe de Articulação e Assessoria às Comunidades Negras e Quilombolas do Vale do Ribeira (Eeacone), 88 comunidades quilombolas vivem na região (Andrade e Tatto 2013). Bombas é geralmente considerada a mais remota e tradicional delas, mas ainda não foi oficialmente reconhecida (Santos e Tatto 2008; Santos 2010). O Relatório Técnico Científico do Instituto de Terras de São Paulo, baseado em estudo antropológico, aponta fortes laços comunitários e características de um quilombo, concluindo que Bombas se encaixa adequadamente no critério legal do devido reconhecimento (Silveira 2003). No entanto, na medida em que Bombas se encontra no interior do Parque Estadual Turístico do Alto Ribeira (Petar), o processo de reconhecimento foi suspenso pela Secretaria de Meio Ambiente do Estado de São Paulo em 2003, que demandou estudos ambientais do território. Por conta da relação historicamente tensa com autoridades florestais, os habitantes de Bombas impediram a entrada de pesquisadores para realizar os referidos estudos até que fossem reconhecidos. Enquanto o impasse no processo permanece, os habitantes da comunidade são privados do acesso a serviços sociais e melhorias na infraestrutura.

Esta situação deriva da adoção pelo Brasil da abordagem preservacionista de conservação (*fortress approach*) dos anos 1930, segundo a qual ocupação humana e extrativismo eram considerados incompatíveis em áreas protegidas[4](Diegues 1998; Penna-Firme 2013). O Petar foi a primeira área protegida a ser criada no estado de São Paulo em 1958, e foi baesada na noção de natureza selvagem (*wilderness*) sem interferência humana. O objetivo primordial era proteger as mais de 350 grutas calcárias contra a mineração, a Mata Atlântica "virgem" contra os madeireiros, e a fauna e flora endêmicas contra a extração (Fundação Florestal 2010). Quando os limites do Petar foram delineados, o território de Bombas ficou integralmente sobreposto aos mais de 35 mil hectares do parque. Nenhuma menção foi feita aos habitantes de Bombas; suas práticas de subsistência e suas residências tornaram-se ilegais (Silveira 2001). Porém, foi somente a partir de 1987 que esforços foram

[2] A palavra quilombo se refere a uma comunidade de descendentes de escravos fugidos, escravos que compraram sua liberdade, ou escravos liberados que receberam terras por doação ou herança, ou escravos que ocupavam terras devolutas, abandonadas ou desocupadas (Schmitt *et al.* 2002). *Quilombola* é o adjetivo derivado de quilombo, e pode se referir a um morador, uma comunidade, uma associação, uma tradição etc.

[3] O Brasil aboliu oficialmente a escravatura em 1888.

[4] O estabelecimento de várias unidades de conservação de uso sustentável desde meados dos anos 1980, que permitem presença humana e uso de recursos naturais de baixo impacto, mostra uma tendência positiva no rumo de abordagens de conservação socialmente e ambientalmente mais justas no Brasil.

feitos para implementar o decreto 32.283/58 estabelecendo o Petar, e membros da comunidade passaram a enfrentar restrições ambientais sobre o uso de recursos naturais e ameaças de despejo.

A maioria das áreas protegidas criadas durante a ditadura militar no Brasil persistiu como "parques de papel" até meados dos anos 1980, quando pressões nacionais e internacionais de organizações conservacionistas investiram na sua implementação, em última instância levando à violação de direitos territoriais e à marginalização social dos habitantes despejados de suas florestas (Diegues 2011). Desde então, em razão do impacto negativo nos modos de vida dos moradores e dos medíocres resultados na busca dos objetivos de proteção ambiental, esta abordagem preservacionista da conservação vem sendo criticada por movimentos e organizações socioambientais, cientistas sociais e, mais recentemente, por um crescente número de cientistas naturais ao redor do mundo (e.g., Gomez-Pompa and Kaus 1992; Stevens and de Lacy1997; Neumann 2004; Brockington *et al.* 2008; Oudenhoven *et al.* 2011; Robbins 2012; Benjaminsen and Bryceson 2012). Vários autores têm questionado as teorias de equilíbrio de florestas maduras estáveis, comumente usada para apoiar a criação de unidades de conservação de proteção integral com o objetivo de reduzir variabilidade através da adoção de controles externos (e.g., Fairhead and Leach2000; Zimmerer 2000; Forsyth and Walker 2008; Beymer-Farris 2013). Esses críticos enfatizam a importância de perturbações antropogênicas de pequena escala para a produção de florestas biologicamente diversas em múltiplos estados. Ademais, no Brasil, a relevância do conhecimento de povos tradicionais e sua relação equilibrada com a Mata Atlântica têm sido levantadas como argumento para regularizar sua presença no interior dessas áreas (Sanches 2001; Ferreira 2004; Rezende da Silva 2008; Diegues 2011).

Para explicar como os quilombolas de Bombas respondem e moldam mudanças socio-ecológicas, o presente artigo explora processos históricos e contemporâneos sociais, ecológicos, econômicos e políticos que afetam seus modos de vida e a Mata Atlântica. Embora a maioria dos quilombos no Vale do Ribeira esteja situada em áreas de floresta, a maior parte dos estudos sobre essas comunidades é focada em aspectos sociais ou ecológicos, tratando ambas dimensões separadamente. Poucos estudos analisam a forma como as dinâmicas culturais e as estratégias de subsistência dos quilombolas vêm mudando ao longo do tempo, e como isso define e mantém a Mata Atlântica, e ainda menos estudos consideram as dimensões políticas dessas mudanças (Pedroso *et al.* 2008; Pedroso *et al.* 2009; Munari 2009; Adams *et al.* 2013). Pretendo investigar essas lacunas através da adoção de uma abordagem interdisciplinar.

Abordagem Teórica e Metodológica

Como forma de analisar os processos de mudança no sistema socio-ecológico de Bombas, combinarei o ciclo adaptativo utilizado na literatura sobre resiliência com contribuições da ecologia política. O ciclo adaptativo foi originalmente desenvolvido por Crawford Stanley Holling (1986), que também introduziu o conceito de resiliência ecológica em um esforço de investigar como ecossistemas reagem e se adaptam a mudanças em várias escalas espaço-

temporais. Ao contrário dos pressupostos sobre equilíbrio estável, a pesquisa de Holling destaca as dinâmicas de equilíbrios múltiplos e a natureza cíclica dos ecossistemas. De acordo com o ciclo adaptativo, um ecossistema evolui de crescimento rápido (exploração – r) lentamente para uma comunidade clímax (conservação – K), depois rapidamente para o colapso ou desagregação (destruição criadora - Ω), e também rapidamente para a reorganização (renovação - α), antes de retornar à fase de crescimento (Holling 1986). Durante a longa e lenta progressão de r até K, a organização ou conectividade aumenta acompanhada de uma acumulação gradual de capital. À medida que a estabilidade aumenta, variabilidade e diversidade diminuem, assim como diminui a probabilidade de surgimento de inovação. O ecossistema finalmente se torna tão sobrecarregado que uma rápida mudança descontínua é deflagrada, levando à desagregação do capital acumulado, o que pode resultar na perda de alguns atributos do sistema. Segue-se a isto um período de reorganização durante o qual inovação e adaptação podem ocorrer. Na fase r seguinte, o sistema assume uma nova trajetória.

Mais recentemente, o conceito de ciclo adaptativo foi desenvolvido para analisar sistemas socio-ecológicos integrados e gestão adaptativa (e.g., Gunderson and Holling 2002; Seixas and Berkes 2003; Widlock *et al.* 2012). No entanto, o componente científico social é ainda relativamente pouco desenvolvido, e a sociedade é frequentemente retratada como um sistema fechado desprovido de agência humana. Ademais, a abordagem de "resiliência socio-ecológica", sobre a qual o ciclo adaptativo se assenta, vem sendo criticada por ser a-histórica e por não abordar suficientemente a justiça social, relações de poder e o papel da política na definição do acesso e controle a recursos (Turner 2008; Davidson 2010; Beymer-Farris *et al.* 2012; Beymer-Farris 2013). Como forma de expandir a teoria do ciclo adaptativo para passar a incorporar dinâmicas historico-políticas e a agência humana, optei por integra-la a ideias de ecologia política inspiradas do estudo de Beymer-Farris (2013). O campo da ecologia política enfatiza a forma como a história institucional e as estruturas politico-econômicas existentes, bem como as relações de poder ali contidas, influenciam o acesso a recursos e sua gestão, e tem sido utilizado para examinar lutas políticas e capacidades adaptativas em sociedades humanas (e.g., Fairhead and Leach 2000; Zimmerer 2000; Neumann 2004; Porro 2005; Robbins 2012). A ecologia política oferece uma perspectiva crítica sobre a conservação da biodiversidade e a geralmente problemática relação entre áreas protegidas e comunidades humanas.

Métodos

Os dados primários utilizados neste artigo foram obtidos em trabalho de campo etnográfico em Bombas com observação participativa e registros em um diário de campo, bem como 30 entrevistas não estruturadas e aprofundadas, gravadas com membros da comunidade, ex-moradores, lideranças de outras comunidades quilombolas nos municípios de Eldorado e Iporanga, autoridades governamentais, políticos, advogados, pesquisadores, professores, monitores ambientais, e representantes de ONGs, movimentos sociais e ordens religiosas (2010–2013). Conhecimento também foi obtido de conversas informais, participação em reuniões, audiências públicas e seminários com membros da comunidade e outros atores

chave. Dados históricos foram obtidos de relatos orais tradicionais e combinados com documentos oficiais e publicações, contribuindo para a reconstrução do passado social, econômico e político do Vale do Ribeira. Ademais, mudanças ao longo do tempo na ocupação da terra e nos padrões florestais em Bombas foram analisadas através da classificação e comparação de uma foto aérea de 1962 com três imagens de satélite de 1990, 1999 e 2010 com o software ArcGis[5]. A ocupação da terra foi dividida em três categorias: (1) atividades de agricultura: hortas caseiras, roças e áreas de pousio recente de até 3 anos; (2) florestas em regeneração de 4-10 anos; e (3) áreas de florestas > 10 anos, calculando o tamanho e o número das manchas em cada categoria. Devemos ponderar o fato de que as resoluções das imagens de satélite não são iguais, a dizer 30 m para a imagem Landsat de 1990, 15 m para a imagem Landsat de 1999, e 2,5 m para a imagem SPOT de 2010. Isto pode ter afetado a análise visual da ocupação da terra. A classificação do uso do solo nos quatro períodos e a interpretação das mudanças observadas foram então cruzadas com os habitantes de Bombas em uma discussão focal de grupo feita na comunidade em Abril de 2013.

A Comunidade de Bombas

Bombas está localizada no município de Iporanga, cerca de cinco quilômetros da estrada ligando Iporanga a Apiaí. Por causa do terreno acidentado, o acesso à comunidade é difícil e demorado. A única forma de chegar a Bombas é a pé ou a cavalo. O uso e ocupação históricos deram origem a um território de 3.229 ha (Fig. 1). Todas as áreas em Bombas já foram habitadas, mas o Córrego Grande permaneceu em pousio por muitos anos. A paisagem é caracterizada por um mosaico de florestas maduras, florestas secundárias em regeneração e áreas recentemente cultivadas. O terreno é principalmente de rochas calcárias com muitas cavernas subterrâneas (Fundação Florestal 2010). Vinte e sete casas feitas de pau-a-pique se localizam de forma dispersa no território, e não há centro comunitário (Santos and Tatto 2008). No entanto, os habitantes se referem a Bombas e Cotia como dois núcleos, onde as duas escolas se situam. A maioria dos habitantes não é alfabetizada e os serviços de educação são fracos, havendo aulas apenas para os primeiros quatro anos do ensino fundamental. Além de não existir acesso por estradas, não há eletricidade, saneamento básico, coleta de lixo, serviços de saúde ou telefones públicos, contrariamente a outras comunidades quilombolas do Vale do Ribeira. O centro comunitário é em Bombas, enquanto a capela, que já foi importante no passado e hoje está em ruínas, está localizada em Cotia.

[5] A fotografia aérea foi cedida pelo Departamento de Geografia da Universidade de São Paulo. As imagens de satélite Landsat de 1990, 1999 e a imagem de satélite SPOT de 2010 foram cedidas pelo Instituto Socioambiental (ISA) em São Paulo.

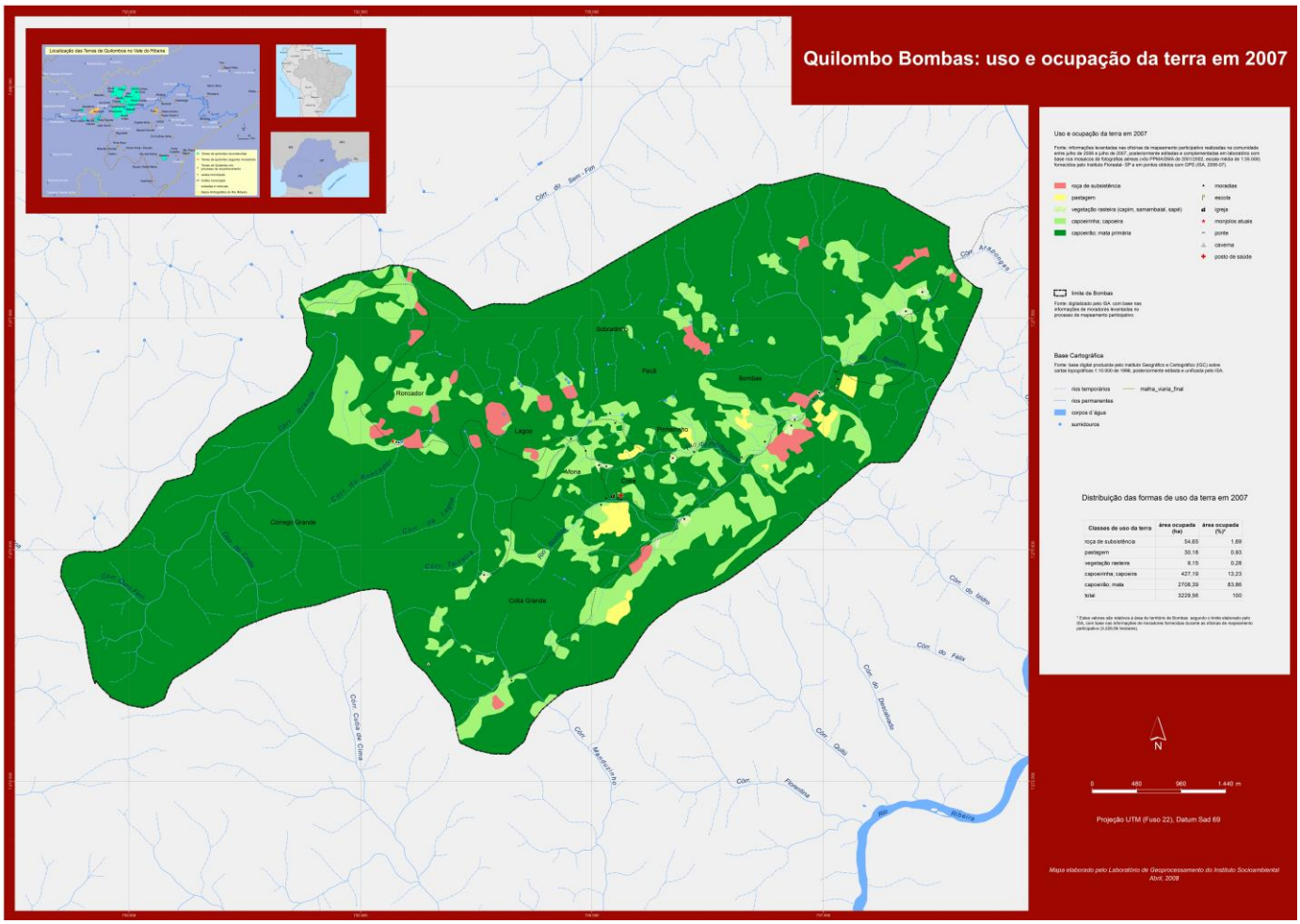


Fig. 1: Mapa do território de Bombas mostrando uso do solo e assentamentos em 2007 (Santos e Tatto, 2008)

A História do Assentamento de Bombas

De acordo com os entrevistados, o vale de Bombas era antigamente cruzado por povos indígenas que migravam dos planaltos na direção sudeste em busca de peixes e moluscos na costa Atlântica. Estudos arqueológicos feitos por de Blasis e Robrahn (1998) apoiam essa evidência, mostrando que o vale era uma rota pré-histórica de comunicação entre o planalto Atlântico e as planícies do Ribeira. Em Bombas, pontas de flecha podem ser encontradas em vários sítios arqueológicos, e os habitantes contam de um cemitério indígena em Cotia (Silveira 2003). Povos indígenas tiveram uma importância vital no Vale do Ribeira dando nomes a localidades geográficas, fauna, flora, bem como inventando ferramentas para caça, pesca e agricultura (Diegues 2007). A prática da agricultura de coivara é uma herança indígena que representa adaptações à mobilidade doméstica e à economia de subsistência (Cândido1964).

O cultivo da mandioca e o processamento da farinha é uma prática adaptada às condições de solo e da floresta tropical, também originária dos povos indígenas (Adams *et al.* 2013). Ainda que Bombas tenha sido utilizada e ocupada esporadicamente por centenas ou milhares de anos, não há títulos registrados sobre a área antes de 1855/56, quando 16 pessoas

reivindicaram posse sobre suas terras (Silveira 2003). Entretanto, isso não implica necessariamente que essas pessoas morassem ali ou usassem aquela terra. Ângela Ursulino de Freitas, do Baú, é considerada uma das primeiras habitantes com relações de parentesco com habitantes contemporâneos, tendo se estabelecido em cerca de 1910. De acordo com seus netos, ela era uma escrava. A partir do trabalho de Silveira (2003) e também de declarações de moradores de Bombas, parece evidente que a origem da comunidade advém de diferentes ocupações de pessoas de procedências diversas. Apesar disso, os membros da comunidade se consideram como um grupo, unido por parentesco, afinidade e trabalho.

Uso Tradicional de Recursos na Mata Atlântica

Na época do assemntamento de Bombas, terras e recursos naturais eram abundantes, e era possível escolher livremente as áreas para construção de casas e abertura de roças. Uma roça pertencia à pessoa que primeiro a abriu e cultivou, e conforme o grau de parentesco, essa "proprietária" podia ceder direitos de plantio a parentes. Através da prática da agricultura, os membros da comunidade de Bombas conseguiam assegurar calorias e proteína em suas dietas, cultivando culturas alimentares perenes e de ciclos anuais. Pequenas hortas domésticas eram cultivadas com uma variedade extensa de vegetais, ervas e frutas. Culturas de subsistência de ciclo médio, como arroz, feijão, cana-de-açúcar e mandioca, eram cultivadas em roças utilizando-se técnicas de agricultura de coivara. Este sistema de agricultura é largamente utilizado em habitats de floresta tropical no Brasil (Sanches 2001; Porro 2005; Pedroso Jr. *et al.* 2009; Hanazaki *et al.*2013) e em outras regiões tropicais do mundo (van Vliet *et al.* 2012). Condições físicas, como a idade da floresta (estágio sucessional), propriedades do solo e usos históricos são fatores considerados para a abertura de uma roça para cultivo. As áreas mais íngremes e rochosas eram geralmente evitadas, sendo portanto cobertas de florestas maduras. Áreas em estágio secundário de regeneração florestal eram geralmente as preferidas, por serem ricas em matéria orgânica e menos trabalhosas para abrir, em função do diâmetro menor dos troncos. A vegetação rasteira era primeiramente removida com enxadão, seguido do corte de árvores a machado. Depois de secar ao sol, a área era queimada. Anciãos experientes decidiam quando queimar e monitoravam a área para evitar o alastramento do fogo. De acordo com Forsyth e Walker (2008), práticas de queima controlada podem sistematicamente enriquecer tanto a vegetação de capoeira como de floresta, na medida em que nutrientes armazenados são liberados e adicionados ao solo, resultando em aumento de produção de biomassa, ao mesmo tempo em que o fogo também estimula a dispersão de sementes, o controle de doenças e surtos de pragas. Depois de cultivadas por alguns anos, as roças foram deixadas em pousio por um tempo considerável (5–30 anos) antes de seu replantio, ou abandonadas para regeneração completa. Não era raro uma família deter várias roças, algumas distantes do núcleo residencial. Algumas roças eram mais intensamente utilizadas, como as próximas às casas, e algumas eram abandonadas por períodos mais longos, criando uma cobertura territorial heterogênea composta de um mosaico complexo de áreas cultivadas, florestas primárias e florestas secundárias.

Todas as atividades agriculturais eram planejadas em seus respectivos meses e de acordo com as fases lunares para alcançar máximo rendimento (Sanches 2001). O arroz era geralmente plantado no fim do período de seca, em Novembro, e colhido em Maio através de um esforço coletivo (puxirão)[6] envolvendo membros da comunidade, parentes e amigos de áreas próximas (Silveira2003). O feijão era geralmente plantado junto com o milho, ajudando na fixação de nitrogênio, e podia ser plantado duas ou três vezes por ano, dependendo das condições climáticas.

Na medida em que variedades cultivadas e silvestres de mandioca cresciam próximas nas pequenas roças abertas na floresta, o fluxo genético era mantido através de hibridização, contribuindo para aumentar a diversidade (McKey *et al.* 2010). Variedades bravas de mandioca eram geralmente preferidas por causa da resistência a pragas, e porque não eram comidas pela maioria dos animais, mas tinham que ser processadas até a farinha (Adams *et al.* 2013; Hanazaki *et al.*2013). Roças de variedades mansas (ou doces) de mandioca eram invadidas especialmente por animais ungulados como caititus, queixadas e veados (Prado *et al.* 2013), e roedores como pacas e cutias. Outros campos cultivados e hortas domésticas também eram regularmente visitados por esses animais, além de antas, tatus e uma ampla variedade de pássaros. A caça desses animais, tipicamente uma atividade masculina, envolvia o uso de espingardas, armadilhas e cachorros, e era principalmente praticada para complementar a dieta ou proteger as hortas e roças cultivadas (Prado *et al.* 2013).

Florestas maduras eram esporadicamente utilizadas para obtenção de madeira maciça para construção de casas, cipós para artesanato e utensílios, tais como cestas e peneiras, e para cobertura de telhados. Vegetação secundária próxima às casas era utilizada para obtenção de lenha. Geralmente as tarefas das mulheres era coleta de produtos da floresta, inclusive plantas medicinais, e o plantio das hortas domésticas, enquanto os homens cortavam as árvores e trabalhavam nas roças. Tanto mulheres como homens se envolviam no processamento das farinhas de mandioca e milho, bem como produção de rapadura. Os habitantes eram geralmente auto-suficientes e havia pouca troca de produtos da agricultura com pessoas de fora. No caso de produção excedente de alimentos, vendiam sua produção e farinha processada em Iporanga ou Apiaí, onde havia instalações para armazenamento. O mercado local fornecia outras necessidades diárias como querosene e sal.

Pressões e Respostas

O modo de vida relativamente estável descrito acima se alterou em resposta a quatro eventos: (1) o aumento de investimentos na região nos anos 1930–1970, (2) a implementação do Petar durante os anos 1980–1990, (3) o processo de construção de uma identidade quilombola e acesso a programas sociais durante os anos 2000, e (4) a negociação sobre direitos territoriais

[6] Os moradores de Bombas diferenciam várias formas de organização de ajuda recíproca: puxirão/mutirão, troca de dia e camarada. Mutirão, uma palavra nova para puxirão, é uma organização de ajuda mútua de grande escala, incluindo atividades coletivas para limpar uma área de capoeira, plantar, capinar e colher. A reunida é um trabalho coletivo para um objetivo coletivo, como por exemplo abertura de uma nova trilha, ou para um objetivo individual, como a construção de uma casa. Troca de dia é quando uma pessoa ajuda outra em troca de ajuda em outro dia. Camarada é quando uma pessoa paga alguém para ajudar.

com autoridades florestais de 2010 a 2013. Abaixo, faz-se um resumo da cronologia das mudanças na organização social, práticas tradicionais e uso de recursos em Bombas, demonstrando que incentivos econômicos e políticos influenciaram fortemente as dinâmicas comunitárias e as atividades de subsistência.

Aumento de Investimentos na Região nos Anos 1930–1970

Depois de mais de um século de estagnação econômica no Vale do Ribeira, a exploração de depósitos minerais foi apresentada como um remédio ao "atraso" da região, e investimentos governamentais foram iniciados no fim da década de 1930. O primeiro investimento importante foi a abertura da Usina de Chumbo e Prata de Apiaí, e as empresas mineradoras Furnas e Lageado, bastante próximas de Bombas (Silveira 2003). A ausência de estradas fazia de Iporanga um local isolado, e tornava as atividades minerárias difíceis e custosas. Esses fatores levaram à construção de uma estrada entre Iporanga e Apiaí em 1937. O acesso pela estrada facilitou a entrada de grandes criadores de gado e a abertura de uma fábrica de processamento de palmito juçara (*Euterpe edulis* Mart.) (Figueiredo 2000). A população de Bombas crescia à medida que as alternativas econômicas adicionais atraíam trabalhadores de fora e suas famílias. Muitos habitantes tinham a extração de palmito como fonte principal de renda, mas a agricultura familiar continuava a ser a atividade principal de subsistência (Silveira 2001).

Projetos de desenvolvimento continuaram a ser promovidos durante a década de 1960, entre outras razões para promover a ocupação de áreas de difícil acesso, com vistas a combater rebeliões, como o grupo guerrilheiro de Carlos Lamarca[7], que se instalou no Vale do Ribeira entre 1968 e 1971. Uma série de projetos de infraestrutura foram iniciados, como a construção da rodovia estadual SP-156 ligando Iporanga ao município de Eldorado, a construção de uma ponte sobre o Rio Ribeira de Iguape, o fornecimento de energia elétrica e serviços de telefonia em Iporanga, e o estabelecimento de diversas agências regionais de desenvolvimento do Estado (Figueiredo2000). Tais projetos governamentais atraíram mais pessoas à região, e também a Bombas. De acordo com os habitantes de Bombas, mais de 80 famílias viviam em Bombas nos anos 1970, resultando em uma extensa área cultivada. Roças eram de tamanho considerável e podiam ter um ou mais donos, que pagavam diárias para ajuda na roça (camarada). Apesar da agricultura intensa, o período de pousio não se alterou. Membros da comunidade se recordam que havia grande riqueza e abundância de animais e pássaros no território nessa época, e associam essa abundância à extensa disponibilidade de cultivos e frutas. A criação de porcos era a principal atividade geradora de renda, mas alguns habitantes também criavam cabras que forneciam leite e queijo. Outros tentaram por algum tempo criar gado, mas desistiram devido a problemas de compactação de solo e recuperação de pastagens. Com a renda aumentada, os habitantes podiam comprar óleo de cozinha e carne seca, além de sal e querosene.

[7] Carlos Lamarca foi um dos líderes da oposição armada à ditadura militar no Brasil.

Trabalho coletivo era algo regular e, como as alianças eram amplas, não raro mais de 80 pessoas participavam dos mutirões, inclusive amigos e parentes de comunidades e vilas próximas. Os mutirões eram geralmente feitos no fim de cada mês, e uma festa era organizada pelo dono da roça no fim do dia, com grandes fogueiras, sanfona, viola, dança e cantoria até o raiar do dia. Anciãos relatam que um animal doméstico era abatido para a ocasião, e beiju e cachaça eram servidos. As festas eram também ocasiões para namoros que mais tarde resultavam em casamento. Outras atividades sociais incluiam missas e celebrações católicas, e padres visitavam a comunidade uma vez por mês. As celebrações da Bandeira do Divino, Nossa Senhora Aparecida, Santo Antônio, Recomendação das Almas, a Romaria de São Gonçalo e a Mesada dos Anjos eram um fator de união da comunidade e fortalecia laços sociais entre membros do grupo (Andrade e Tatto 2013).

Implementação do Petar nos anos 1980–1990

Em resposta às atividades extrativistas que ocorriam em Iporanga entre os anos 1930 e 1970, a conservação ambiental se tornou uma preocupação séria para cientistas e ativistas. Abrangendo o maior remanescente de Mata Atlântica no Brasil, com 2,1 milhões de hectares, o Vale do Ribeira passou a ser considerado uma fonte de rica biodiversidade natural por organizações ambientalistas nacionais e internacionais. (Ferreira 2004; Santos e Tatto 2008). Ademais, membros da Sociedade Brasileira de Espeleologia e técnicos do Instituto Geográfico e Geológico identificaram diversas cavernas a serem protegidas em Iporanga e Apiaí, incluindo áreas adjacentes e sobrepostas ao território de Bombas (Guimarães e LeBret 1966). Uma delas era a caverna de Bombas, habitat da endêmica espécie de bagre cego (*Pimelodella kronei*), ameaçada de extinção, que se tornou um dos principais alvos dos ambientalistas para conservação – e o logo oficial do Petar. Baseado nas descobertas de espeleologistas e sugestões da Superintendência de Desenvolvimento do Litoral Paulista (Sudelpa), um grande número de áreas protegidas foi criado e implementado no Vale do Ribeira, das quais o Petar era o projeto piloto. Neste período, cerca de 70% do município de Iporanga estava sob alguma forma de proteção ambiental (Figueiredo 2000; Castro *et al.* 2006). Em função das políticas conservacionistas, fábricas de palmito foram fechadas em meados dos anos 1980, e o ecoturismo orientado a turistas urbanos se tornou o principal foco de ação governamental, com pouca participação dos habitantes locais e autoridades municipais. Embora o turismo tenha se desenvolvido no bairro adjacente da Serra, isso não ocorreu em Bombas, devido à inacessibilidade da comunidade (Silveira 2007).

Notícias da implementação do Petar chegaram a Bombas de forma confusa e causou perplexidade aos moradores. Nenhum oficial de governo ou funcionário do parque havia sequer visitado a comunidade para informar os moradores da criação e implementação do parque. Com os novos regulamentos do parque vigentes, a prática de agricultura de coivara e o uso associado da queima, o cultivo das hortas domésticas, a criação de animais, caça, pesca, extração de palmito e outros produtos florestais, bem como a ocupação humana, se tornaram ilegais (Andrade e Tatto 2013). Autoridades do parque e a polícia ambiental passaram a entrar no território para aplicar as leis ambientais, ameaçando os moradores de remoção e multas.

Moradores eram por vezes presos e algemados, e moradores passaram a acusar uns aos outros de estarem envolvidos em alguma extração ilegal de recursos florestais. Esta tensão crescente entre membros da comunidade levou a uma maior incidência de conflitos internos. Por outro lado, devido à sua localização remota, Bombas não era o alvo de um controle tão rigoroso, e a maior atenção era dada próxima à caverna de Bombas. Embora poucos moradores de Bomba tenham sido de fato multados por violações ambientais, o medo do "meio ambiente", como os moradores se referem às autoridades florestais, se enraizou na comunidade (Silveira 2001). Moradores da comunidade passaram a suspeitar de qualquer pessoa de fora que chegasse ao território, com medo de terem suas roças denunciadas e suas espingardas confiscadas.

A implementação do Petar deixou os moradores de Bombas em uma situação confusa, e muitos hesitavam em dar seguimento a atividades agrícolas tradicionais. A prática de grandes trabalhos coletivos como o mutirão passou a ser evitada, de forma a não chamar a atenção dos guarda-parques e da polícia ambiental. No entanto, como os moradores de Bombas não tinham outras opções, continuaram em larga medida suas práticas de uso da floresta em áreas mais escondidas, menos visíveis e onde o acesso das autoridades florestais era mais difícil. Isso significava que roças eram abertas ainda mais longe das trilhas e casas, e em áreas mais íngremes, que antigamente tinham sido evitadas. Algumas áreas íngremes em Bombas ainda são dominadas por samambaias, evidência de que áreas inaptas foram cultivadas e não conseguiram ainda se recuperar. A situação piorou quando alguns moradores foram contratados por agentes externos para a extração do palmito. Sem outras opções de renda, e com populações abundantes de palmito juçara no território, o palmito era o meio dos moradores ganharem seu sustento. Muitas pessoas de fora também invadiram o território para tirar palmito, e exemplares jovens de juçara passaram a ser cortados antes de alcançar seu estágio reprodutivo, que demora 10 anos (Silveira 2001). De acordo com Silveira (2003), isso continuou até meados de 1990, altura em que exemplares adultos de juçara já estavam praticamente extintos.

Embora os moradores não tenham sido removidos fisicamente do território, as ameaças de remoção forçada e a falta de alternativas econômicas na comunidade resultaram na decisão de muitos de se mudarem em busca de melhores condições de vida. Um grande número de moradores migraram para trabalhar em plantações de tomates no Alto Ribeira e Sorocaba. Alguns foram trabalhar em canaviais e plantações de pinus e eucalipto, outros se mudaram para as áreas urbanas dos municípios de Iporanga, Apiaí, Itaoca ou ainda mais longe para Guaraí, Cajaíba, Itu, São Paulo e Campinas. Os moradores que não se mudaram, ou que retornaram por causa das adversidades encontradas lá fora, encontraram novos desafios. Restavam poucas pessoas na comunidade, e a pouca densidade demográfica dificultava a mobilização das redes de auxílio mútuo, resultando num aumento das reunidas em detrimento dos mutirões. As reunidas podiam ser organizadas em qualquer dia da semana, envolviam menos gente e não havia festa no fim do dia. O número e tamanho das roças, bem como a a rotação de cultivo, diminuíram, aumentando assim o período de pousio. Muitos anciãos se mudaram ou, com o tempo, faleceram, o que resultou na perda de conhecimento tradicional sobre plantas e animais, uso de recursos e tabus, e produção doces. As tecnologias tradicionais para processamento da mandioca e farinha de milho também se perderam, levando à perda de variedades de mandioca brava. A redução da atividade agrícola tradicional levou ao aumento

da necessidade de compra de bens previamente produzidos pelos moradores locais, como café, sabão, rapadura, e farinhas de mandioca e milho. Os moradores de Bombas passaram a depender mais desses bens, enquanto seu poder de compra permanecia baixo.

Construção de uma Identidade Quilombola e Acesso a Programas Sociais durante os Anos 2000

Com o tempo, os moradores de Bombas passaram a entender que, se continuassem escondendo suas práticas de uso de recursos naturais, não conseguiriam cobrir suas necessidades de subsistência, e a comunidade viria a desaparecer. Novos esforços para plantar foram envidados, e o número de roças aumentou. Ao mesmo tempo, os moradores passaram a reivindicar direitos territoriais, baseados na sua identidade étnica como quilombola. Morando em uma das áreas mais isoladas da região, os habitantes de Bombas haviam ficado à margem das discussões sobre direitos territoriais dos quilombos, que vinham ocorrendo desde os anos 1990 em outras comunidades afrodescendentes no Vale (Silveira 2007). As comunidades ao longo do Rio Ribeira de Iguape iniciaram processos de reconhecimento no início dos anos 1990 como uma estratégia contra a construção de uma série de barragens hidrelétricas planejadas. A mobilização de comunidades quilombolas culminou no estabelecimento de um movimento socioambiental de pessoas ameaçadas pelas barragens (Movimento dos Ameaçados por Barragens - MOAB), com apoio da Igreja Católica (Comissão Pastoral da Terra). Os moradores de Bombas mais fortemente engajados com a Igreja Católica foram os primeiros a levantar a questão dos quilombos. Moradores começaram a compreender que se a comunidade fosse reconhecida como quilombo, seu território histórico poderia deixar de ser sobreposto por uma unidade de conservação, ou esta unidade poderia ser alternativamente reclassificada como uma unidade de conservação de uso sustentável, permitindo presença humana e uso. Os limites de parques já haviam sido alterados em várias outras comunidades quilombolas na região, como por exemplo, Ivaporunduva, São Pedro, Maria Rosa, Pilões e Pedro Cubas, cujas áreas estavam parcialmente sobrepostas pelo Parque Estadual Intervales (Oliveira Jr *et al.* 2000). Estas áreas foram posteriormente reclassificadas como unidades de conservação de uso sustentável, tornando-se parte do Mosaico de Jacupiranga. Em 2002, a comunidade de Bombas entrou com um pedido de reconhecimento como quilombo junto ao Instituto de Terras de São Paulo (Itesp), na expectativa não apenas do seu reconhecimento, mas também da retirada dos limites do Parque e de ação efetiva do Estado para melhorar suas condições de vida. Em 2004, a comunidade se organizou formalmente e fundou a Associação dos Remanescentes de quilombo de Bombas.

Uma vez organizados socio-politicamente, os moradores de Bombas buscaram adquirir documentação básica, como certidão de nascimento e carteira de identidade, de forma a permitir o acesso a programas sociais governamentais já estabelecidos. Idosos e pessoas com deficiência passaram a receber aposentadoria rural e por invalidez, e passaram a sustentar financeiramente suas famílias, alterando as relações sociais em Bombas. Durante a administração do Partido dos Trabalhadores (2003–2013), vários programas de combate à pobreza, fome e de promoção da segurança alimentar foram implementados no Brasil. Os

moradores de Bombas que tinham filhos passaram a receber o Bolsa Família, com a condição de matricular os filhos na escola. Em 2004, o governo passou a distribuir cestas básicas a moradores de Bombas, contendo itens como arroz, feijão, milho, farinha, açúcar, café, macarrão e óleo de cozinha, muitos destes tradicionalmente cultivados e processados na comunidade, o que desincentivou o envolvimento das pessoas na prática tradicional da agricultura. Menos roças eram abertas e eram frequentemente situadas próximas às casas, devido a restrições de tempo diante da força de trabalho reduzida. Os moradores de Bombas não plantavam mais tanto arroz, mandioca e outras culturas quanto antigamente, o que levou ao abandono de algumas variedades e à redução da agrobiodiversidade. Esquemas de trabalho coletivo de larga escala, como os mutirões e reunidas, se tornaram raros, e a troca de dia passou a ser a forma mais comum de ajuda recíproca. Celebrações religiosas permaneciam sendo os principais eventos de reunião de pessoas na comunidade (Santos 2010). No entanto, o aumento do número de pessoas convertidas do Catolicismo a seitas evangélicas pentecostais levou a uma diminuição na participação em celebrações católicas, enfraquecendo ainda mais a coesão social.

Negociação sobre Direitos Territoriais em 2010–2013

Após a conclusão do Relatório Técnico-Científico pelo Itesp (Silveira 2003), baseado em um estudo antropológico, o processo de reconhecimento quilombola foi suspenso pela Secretaria de Meio Ambiente de São Paulo, que exigia estudos ambientais de Bombas. A Fundação Florestal foi incumbida de conduzir esses estudos, mas devido ao relacionamento historicamente ruim com autoridades florestais, os moradores de Bombas negaram aos pesquisadores acesso a seu território até que fossem reconhecidos como quilombo. De acordo com as autoridades florestais, o reconhecimento só poderia ser dado após os estudos ambientais serem concluídos. Este impasse durou até que o Petar iniciou os preparativos para elaboração de seu Plano de Manejo, que envolvia estudar o Parque inteiro, inclusive Bombas. A ONG Instituto Socioambiental (ISA) atuou como mediadora nas negociações entre a associação quilombola de Bombas, a Fundação Florestal e o Instituto de Terras de São Paulo, que resultaram na assinatura de um Protocolo de Intenção e um Plano de Trabalho em 2010. Lideranças quilombolas de outras comunidades e irmãs católicas envolvidas na EEACONE, a entidade formalmente criada do movimento contra as barragens, apoiou Bombas através do compartilhamento de experiências e de assessoria jurídica. A Fundação Florestal contratou um grupo de pesquisadores da Escola Superior de Agricultura da USP (ESALQ) para realizar os estudos. Após a conclusão do relatório de pesquisa, uma proposta de território foi apresentada às autoridades florestais, excluindo a área do Córrego Grande. Na época da elaboração do presente artigo, a associação de Bombas havia decidido aceitar esta proposta sob as condições de que a comunidade fosse legalmente reconhecida, de que os limites do Petar sobrepostos ao território de Bombas fossem alterados, e de que um acesso por estrada fosse construído pelo Estado.

No início da presente pesquisa em 2010, a camarada era a forma mais comum de organização de trabalho, por meio da qual um morador paga um valor de US$ 12 (doze

dólares norte-americanos) por pessoa por dia, em caso de dificuldades para conseguir ajuda. É um valor bastante elevado para agricultores sem salário, de forma que apenas as pessoas que recebiam aposentadoria rural ou por invalidez tinham condições de arcar com isso. Doze famílias viviam na comunidade nesta época; em 2012, dezessete famílias residiam ali, indicando uma tendência populacional positiva. Em Abril de 2013, novas casas de tábuas tinham sido construídas para membros da família que planejavam retornar a Bombas, e alguns moradores tinham substituído suas casas de pau-a-pique por casas de tábuas. Mais tempo e esforços foram dedicados a projectos comunitários, tais como a abertura de um campo de futebol, e havia discussões sobre a limpeza das trilhas. Essas atividades encorajaram o retorno de moradores antigos. Um novo arranjo de roças compartilhadas foi instituído, com a divisão do trabalho e da colheita. Dessa forma, laços sociais foram fortalecidos e menos áreas precisaram ser abertas. A esta altura, moradores criavam apenas galinhas, patos e perus, ao invés de porcos, cabras ou vacas.

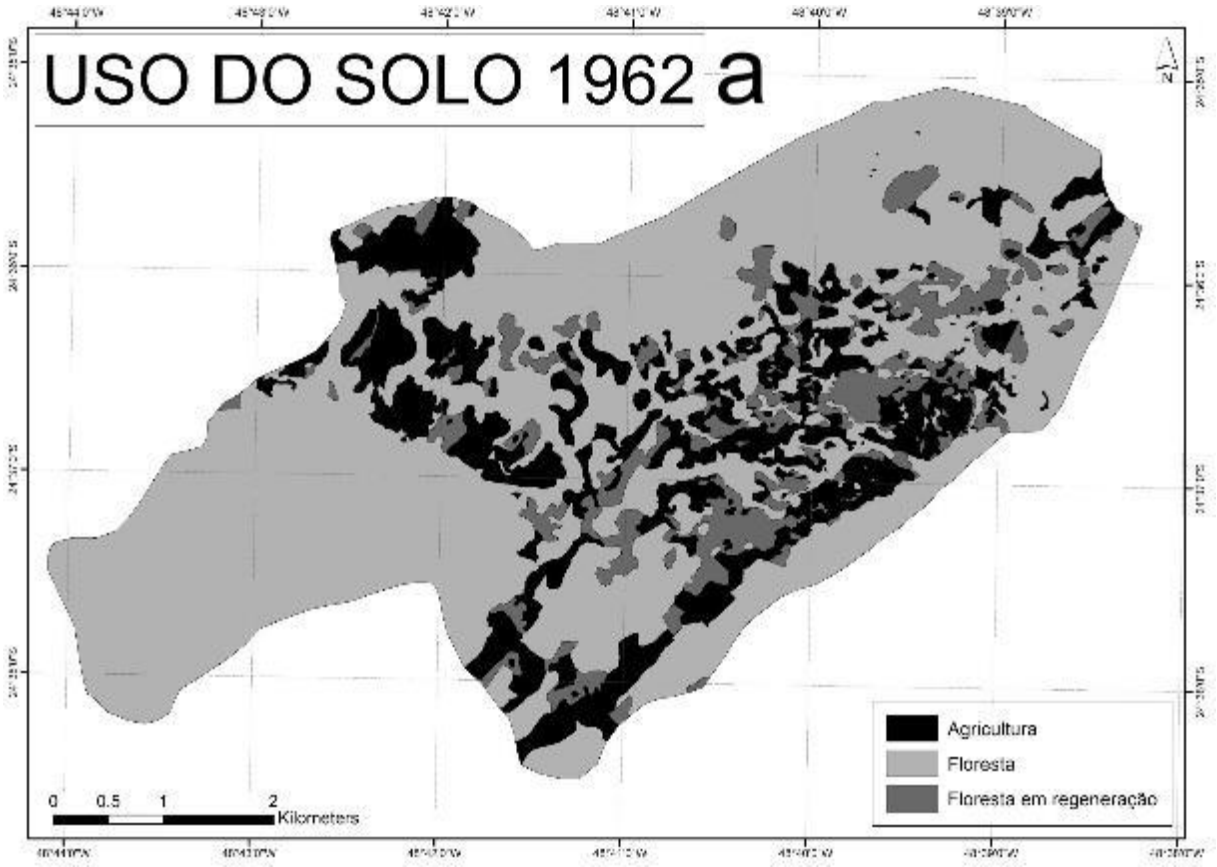
Dinâmicas de Mudanças Socio-Ecológicas em Bombas

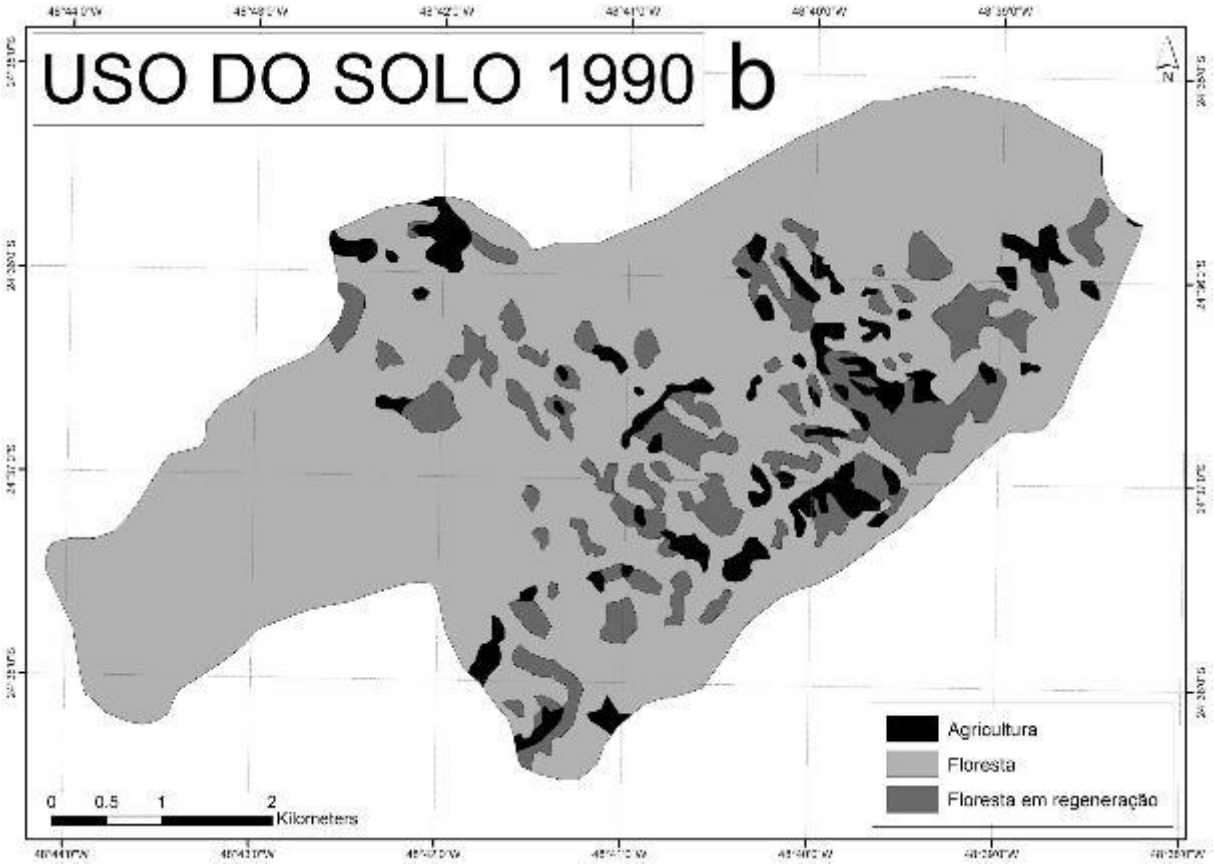
Alterações na Ocupa ção da Terra

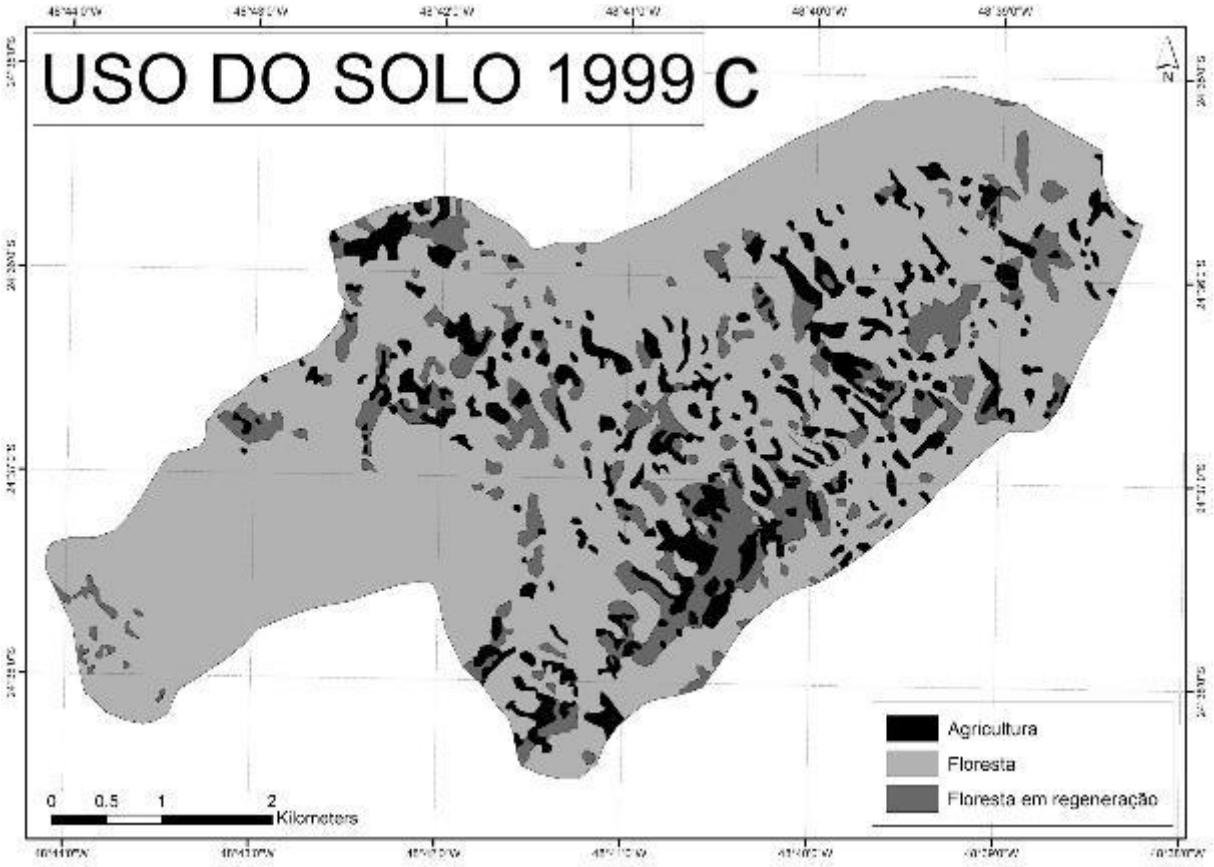
Mudanças históricas no uso do solo e padrões florestais em Bombas foram analisadas mediante a classificação e comparação da ocupação da terra a partir de uma fotografia aérea de 1962 com imagens de satélites de 1990, 1999 e 2010 (Tabela 1, Fig. 2a–d). Apesar de um aumento considerável em 1999, o tamanho médio das áreas cultivadas (incluindo hortas, roças e pousio) veio caindo ao longo desses períodos. Os moradores explicaram o alto número de roças de tamanho grande em 1962 (Fig. 2a) como uma consequência da alta densidade populacional combinada com o envolvimento ativo em atividades agriculturais, com extenso trabalho coletivo. Isto mudou depois da implementação do Petar, quando as práticas agriculturais passaram a ser cada vez mais escondidas em resposta à aplicação de políticas e leis de conservação (Fig. 2b). Na medida em que isso acarretou escassez de alimentos, várias roças pequenas foram reabertas em 1999 (Fig. 2c). O recebimento de rendas de programas sociais e de cestas básicas, bem como o compartilhamento das roças e da colheita em 2010, novamente levaram à redução do número de roças (Fig. 2d). Em geral, houve uma redução das atividades agriculturais em Bombas, acompanhada de um aumento geral das florestas em regeneração e maduras (Fig. 3).

Tabela 1 Ocupação da terra em hectares e percentual correspondente do território de Bombas ao longo de quatro períodos (1962, 1990, 1999, and 2010)

Categoria de uso do solo	**1962**		**1990**		**1999**		**2010**	
	ha	**%**	**ha**	**%**	**ha**	**%**	**ha**	**%**
Agricultura	631.68	19	200.80	6	352.30	11	211.19	6
Floresta em regeneração	341.72	11	416.38	13	356.95	11	473.39	15
Floresta	2256.13	70	2612.36	81	2520.30	78	2544.95	79
TOTAL	3229.54	100	3229.54	100	3229.54	100	3229.54	100




USO DO SOLO 1990 b
Agricultura
Floresta
Floresta em regeneração
0 0.5 1 2
Kilometers


USO DO SOLO 1999 C
Agricultura
Floresta
Floresta em regeneração
0 0.5 1 2
Kilometers

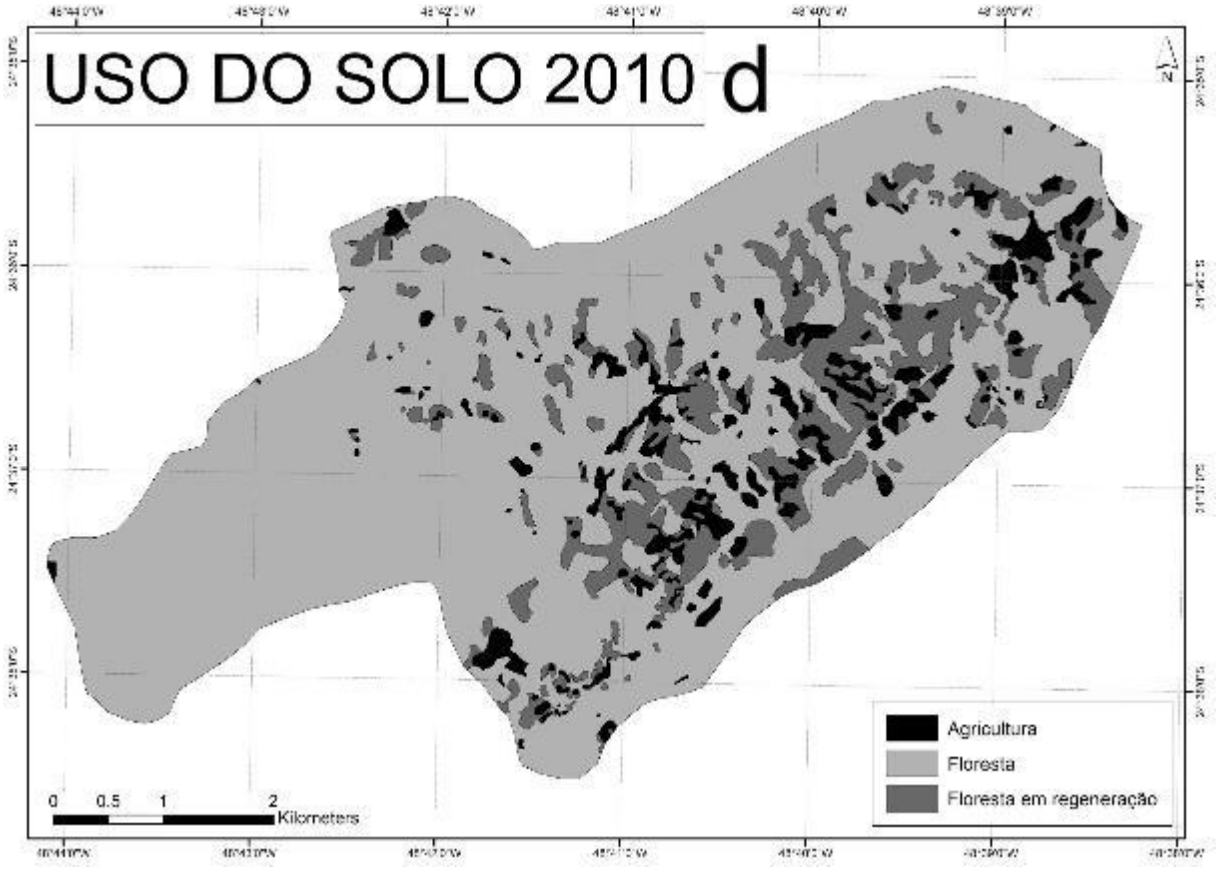


Fig.2 a–d: Ocupação da terra em Bombas mostra áreas de agricultura, floresta em regeneração e floresta em quatro períodos (1962**a**, 1990**b**, 1999**c**, e 2010**d**)

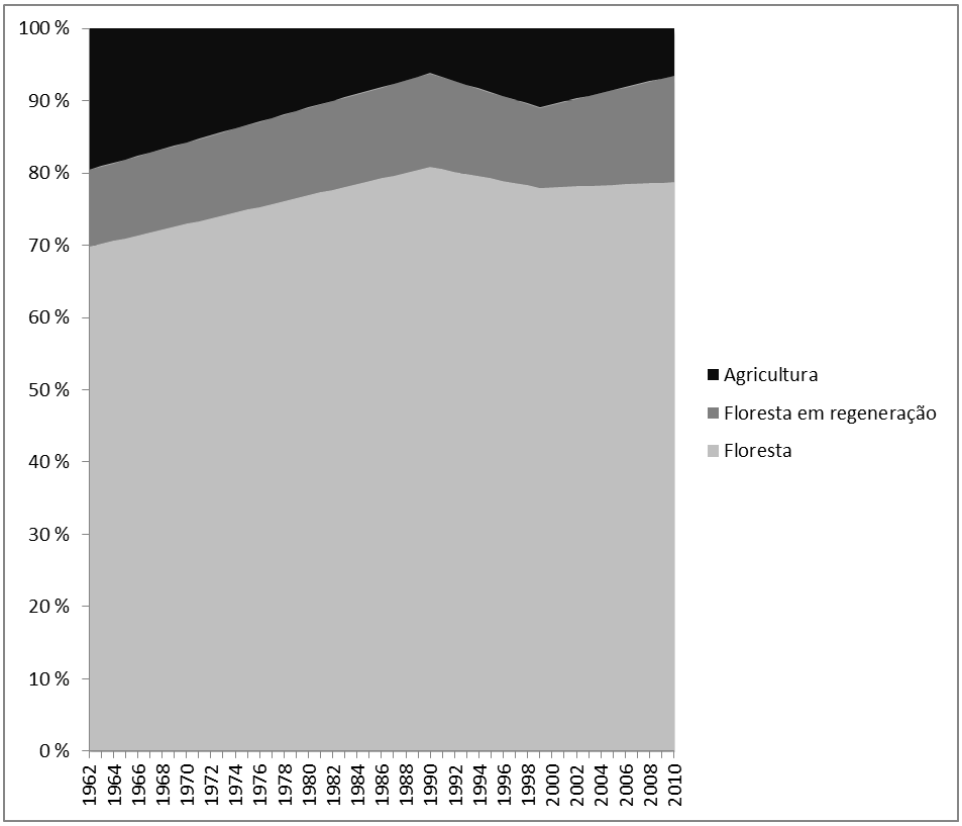


Fig. 3: Percentual das diferentes categorias de ocupação da terra em Bombas ao longo do tempo

A literatura sobre agricultura de coivara em florestas tropicais mostra que a redução da agricultura pode levar tanto a uma transição florestal (Rudel 2012) quanto a uma intensificação da agricultura (Adams *et al.* 2013). Em ambos os casos, a eliminação de perturbações de pequena escala em níveis inferiores, tais como pequenas queimas, demonstrou resultar em menor biodiversidade e complexidade estrutural. Um manejo do fogo que permita o desenvolvimento de um mosaico de áreas cultivadas, florestas secundárias e florestas primárias demonstrou contribuir para ecossistemas mais diversos (Russel 1997; Porro 2005; Pedroso *et al.* 2009; Beymer-Farris *et al.* 2012). Isto porque florestas de diferentes idades abrigam diferentes espécies de plantas e interações, além de permitirem que diferentes populações de animais acessem recursos florestais que variam em abundância ao longo da sucessão florestal (Holling 1986; Rerkasem *et al.* 2009; Oudenhoven *et al.* 2011). O aumento detectado de floresta em regeneração e floresta em Bombas sugere que a redução das práticas tradicionais de agricultura de coivara ao longo das últimas décadas se traduziu num aumento da área total de floresta e de florestas em transição, conforme previsto por Rudel (2012). Essa afirmação é também sustentada por Fox *et al.* (2000), que argumentam que a agricultura de coivara é uma remoção temporária de árvores, não de floresta propriamente dita. Embora a cobertura florestal em Bombas não tenha se submetido a grandes mudanças ao longo do tempo, o perfil da vegetação mudou de uma floresta heterogênea para uma floresta mais homogênea.

Adaptações Socio-Ecológicas

O sistema socio-ecológico em Bombas passou por dois ciclos adaptativos, interligados e consecutivos, de mudanças ecológicas, políticas, institucionais e sociais ao longo do último século (Fig. 4). O sistema passou por um colapso, que levou a uma reorganização social e política, mas ao invés de uma repetição de um único ciclo adaptativo, novas instituições, ideias e políticas contribuíram para o início de um novo ciclo, que por sua vez pode vir a produzir um terceiro ciclo futuro, conectando o sistema não apenas ao seu passado mas também ao seu futuro (Fig. 4). Esta representação difere da maior parte da literatura sobre resiliência, que retrata o ciclo adaptativo como um sistema mais fechado (p.ex., Gunderson and Holling 2002; Widlock *et al.*2012).

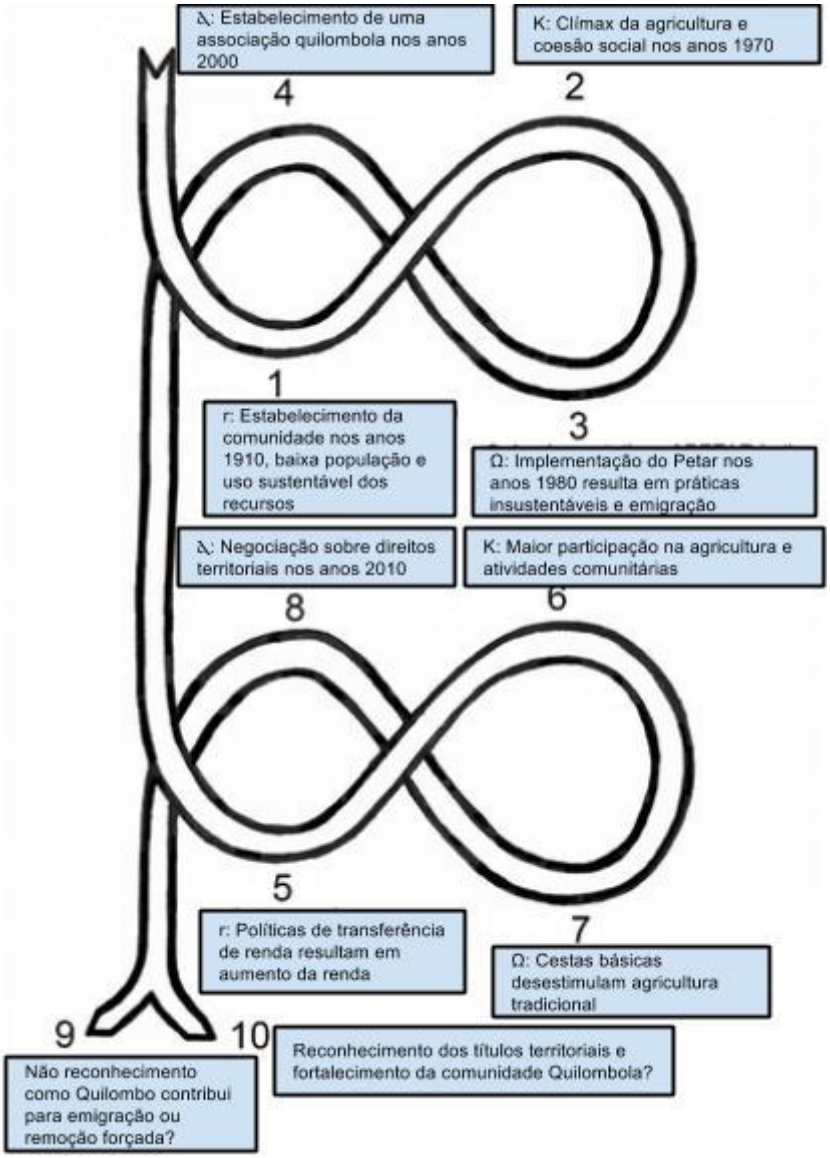


Fig. 4: Dois ciclos adaptativos interligados e consecutivos de mudança socio-ecológica no sistema de Bombas, ilustrando mudanças ecológicas, políticas, institucionais e sociais ao longo do tempo.

O ponto de entrada da Fig. 4 se refere ao conhecimento dos povos indígenas sobre condições agro-ecológicas locais, ferramentas e práticas de agricultura, e características de plantas e animais, que foi transmitidas aos primeiros habitantes de Bombas, que por sua vez transmitiram aos seus filhos e netos. Relatos históricos fazem referência ao uso esporádico do vale de Bombas antes mesmo da ocupação atual, de forma que hoje o que se entende por floresta "virgem" pode ter sido utilizado em tempos antigos. Na época da fundação da comunidade, nos anos 1910, roças eram deixadas em pousio por períodos consideráveis, medidas de prevenção contra o alastramento descontrolado do fogo eram tomadas, e o corte de árvores em áreas íngremes e florestas ripárias era evitado, o que mostra que os moradores evitavam práticas insustentáveis (1). Houve um aumento da população, e a agricultura se intensificou ao longo dos 50 anos subsequentes (Fig. 2a). De acordo com os moradores, a comunidade atingiu um clímax de densidade populacional, redes sociais, práticas culturais e

atividades agriculturais, nos anos 1970 (2). Também descreveram que a abundância de cultivos e frutas atraíam grandes quantidades de ungulados, roedores e pássaros, aumentando a disponibilidade de carne de caça. Acredita-se que o uso intenso da agricultura de coivara produziu uma estrutura florestal mais complexa e retalhada, capaz de abrigar um grande escopo de habitats e nichos, possivelmente sustentando uma diversidade de espécies silvestres. Em razão do forte envolvimento na agricultura e em outras atividades comunitárias, a coesão social era forte. A progressão de (1) para (2) está associada a um lento aumento da organização e conectividade ao longo do tempo, bem como a uma acumulação gradual de capital natural, social e humano.

A implementação do Petar em 1987 foi vista como uma perturbação a este sistema socio-ecológico relativamente estável (3). Em resposta a restrições ambientais e ao receio de sofrer sanções, áreas inadequadas foram cultivadas, numa tentativa de acobertar a atividade, a extração do ameaçado palmito juçara aumentou, e a produção agrícola diminuiu, resultando em menos animais silvestres, de acordo com o relato de moradores da comunidade (Fig. 2b). Ademais, o aumento do ceticismo entre membros da comunidade e da desconfiança em pessoas de fora, conjugado com a emigração, resultou no enfraquecimento da coesão social e perda de práticas e conhecimentos tradicionais, e consequentemente na perda de algumas variedades de cultivos. Por outro lado, essa etapa de "desagregação" ou "destruição criadora" criou espaço para a inovação e renovação. A primeira estratégia de sobrevivência adotada foi o cultivo de um número maior de pequenas roças (Fig. 2c). A segunda resposta foi a organização social e política da comunidade para reivindicar o reconhecimento legal como um quilombo. O estabelecimento de uma associação quilombola nos anos 2000 foi uma tentativa de legalizar a ocupação e o uso dos recursos, bem como obter acesso a serviços sociais e infraestrutura (4).

A aquisição de documentação básica, aposentadoria e a chegada de programas sociais de transferência de renda resultaram numa renda maior para alguns dos moradores, que passaram a apoiar outros moradores e pagar pelas atividades na roça (5). Isso inicialmente contribuiu para o aumento na participação em atividades agriculturais e comunitárias (6). Por outro lado, a distribuição de cestas básicas e de programas de transferência de renda desestimularam as práticas tradicionais de agricultura, aumentando a dependência da assistência governamental (7). Como menos alimento era produzido, a auto-suficiência diminuiu e a necessidade de dinheiro aumentou (Fig. 2d). Em 2013, parecia que Bombas estava prestes a entrar em uma nova rodada de renovação institucional, após entrar em negociações sobre seu território com a Fundação Florestal para prosseguir com o processo de reconhecimento como quilombo (8).

Baseados nos relatos de moradores de Bombas e outros atores envolvidos, alguns possíveis cenários futuros sobre o *backloop* do segundo ciclo adaptativo, de desagregação para reorganização, podem ser delineados. Uma possibilidade poderia ser que a comunidade não consiga obter o reconhecimento oficial como quilombo (9). Isso poderia resultar na remoção forçada de moradores, mas mais provavelmente na degradação contínua das condições de vida, e na emigração, em última instância levando ao abandono do bairro de Bombas. Baseado nas conclusões da análise sobre ocupação da terra, esse cenário provavelmente resultaria na regeneração de uma floresta mais homogênea, levando à perda de

complexidade ecológica e diversidade biológica, como indicado por moradores de Bombas e vários pesquisadores (p.ex., Russel 1997; Pedroso Jr. *et al.* 2009; Oudenhoven *et al.* 2011; van Vliet *et al.* 2012; Robbins 2012; Beymer-Farris *et al.*2012). Para os membros da comunidade, a remoção de seu território histórico poderia levar à perda de identidade cultural, perda de práticas e conhecimentos tradicionais e degradação de relações sociais. Um outro cenário futuro poderia ser que a comunidade venha a ser legalmente reconhecida como um quilombo, obtendo o título de sua terra (10). Autoridades florestais procederiam então à redefinição dos limites do Petar, excluindo o território de Bombas, ou alternativamente reclassificando a unidade de conservação como de uso sustentável, permitindo assim a presença e atividade humana. Haveria neste caso espaço para a reorganização, renovação e inovação no sistema socio-ecológico. O acesso a melhor infraestrutura poderia permitir o transporte de produtos da agricultura para mercados locais, de crianças para estudar em cidades vizinhas, de doentes e grávidas para receber assistência à saúde, facilitando assim o início de pequenos negócios, ecoturismo, e produção agrícola voltada ao mercado, como já é o caso em outras comunidades quilombolas adjacentes (Adams *et al.* 2013). O reconhecimento legal dos direitos territoriais poderia portanto encorajar o envolvimento em atividades de subsistência, melhorando a capacidade adaptativa dos moradores em caso de mudanças políticas ou econômicas.

Conclusão

Durante o último século, Bombas vivenciou dois grandes ciclos de mudança em termos sociais e ecológicos. Combinando o ciclo adaptativo da literatura sobre resiliência com ecologia política, demonstrou-se que a interação entre diferentes políticas e intervenções desenvolvimentistas, ambientais e sociais afetaram o uso do solo pelos moradores de Bombas, com efeitos cumulativos sobre seus modos de vida e a ecologia da Mata Atlântica. Iniciativas desenvolvimentistas nos anos 1930–1970 atraíram pessoas a Bombas que forneciam mão de obra adicional, mas que ao mesmo tempo abriam novas oportunidades fora do território, levando à emigração dos moradores, particularmente os jovens, em busca de uma vida melhor. Políticas ambientais que proibem a ocupação humana e o uso de recursos levou a uma maior emigração e consequente redução do envolvimento das pessoas em atividades de subsistência. Políticas sociais durante os anos 2000 resultaram em maior renda, permitindo aos moradores a compra de produtos que antes eram plantados ou processados na comunidade, ou a substituição de produtos tradicionais com itens fornecidos nas cestas básicas. Os efeitos combinados desses processos resultou na redução de práticas de agricultura de coivara em Bombas, e no aumento da cobertura florestal.

Baseado nos relatos de informantes e em mapas de ocupação da terra, argumenta-se que os moradores de Bombas têm um papel relevante na formação e manutenção da Mata Atlântica, através de práticas de manejo de recursos passadas e presentes. O mosaico de pequenas roças, áreas em regeneração e áreas de floresta promovem diversidade de nichos com condições favoráveis para a diversificação de comunidades silvestres e cultivadas de plantas e animais. A evidência empírica de regeneração da Mata Atlântica seguida de um

menor envolvimento em atividades agriculturais sugere que não houve impactos sérios negativos de longo prazo sobre a cobertura florestal, e que os moradores de Bombas não excederam a capacidade do solo de sustentar tanto a produção na agricultura como a conservação. Essa visão contraria a percepção dominante de que modos de vida tradicionais, de pequena escala, são improdutivos, destrutivos e causam degradação ambiental, visão esta que é utilizada para legitimar a criação de unidades de conservação de proteção integral (Pedroso *et al.* 2009; Robbins 2012; Beymer-Farris 2013). Oudenhoven *et al.* (2011) destacam que as paisagens que co-evoluem com atividades humanas dependem geralmente de sua continuidade para manter a presença de certas espécies e serviços ecossistêmicos. Baseado nessa afirmação, pode-se dizer que a inclusão e o empoderamento dos moradores de Bombas, o estímulo ao seus conhecimentos, práticas e cultura que caracterizam o sistema tradicional de agricultura, poderiam trazer mais benefícios à conservação da biodiversidade do que a sua exclusão. Conclui-se, portanto, que a legalização da ocupação e das atividades de subsistência são importantes não apenas para a segurança dos modos de vida e coesão social dos moradores locais, mas possivelmente também para a conservação da biodiversidade. Isto deveria ser levado em consideração em futuros processos de negociação e planejamento entre a associação quilombola de Bombas, a Fundação Florestal e o Instituto de Terras de São Paulo no tocante aos direitos territoriais e manejo de recursos naturais no território de Bombas. Se Bombas vier a ser reconhecida como um quilombo, seus moradores estarão em uma posição favorável para negociar seus futuros com o Estado pela primeira vez em sua história.

Agradecimentos

Agradeço aos membros da comunidade de Bombas por sua hospitalidade, por aceitar esta pesquisa, e por compartilhar experiências e conhecimento. Agradeço também aos demais participantes desta pesquisa. Agradeço o apoio recebido do Instituto Socioambiental (ISA), particularmente Nilto Tatto, Anna Maria Andrade e Maria Fernanda do Prado, e também a ajuda de Lucia Chamlian Munari, da Universidade de Hohenheim, com a análise da fotografia aérea e das imagens de satélite de Bombas. Agradecimento especial a Ian Bryceson da Universidade Norueguesa de Ciências da Vida por seu envolvimento na análise do caso e revisão de versões anteriores. Três revisores anônimos também contribuíram com comentários importantes. Por fim, mas não menos importante, agradeço as contribuições de Randi Kaarhus, da Universidade Norueguesa de Ciências da Vida. Esta pesquisa foi financiada por uma bolsa de doutorado da universidade.

Referências

Adams, C., Munari, L. C., van Vliet, N., Murrieta, R. S. S., Piperata, B. A., Futemma, C., Pedroso Jr., N. N., Taqueda, C. S., Creverlaro, M. A., and Spressola-Prado, V. L. (2013). Diversifying incomes and losing landscape complexity in Quilombola shifting cultivation communities of the Atlantic rainforest (Brazil). Human Ecology 41(1): 119–137.

Andrade, A. M., and Tatto, N. (2013). Inventário cultural de Quilombos do Vale do Ribeira. Instituto Socioambiental, São Paulo.

Benjaminsen, T., and Bryceson, I. (2012). Conservation, green/blue grabbing and accumulation by dispossession in Tanzania. The Journal of Peasant Studies 39(2): 335–355.

Beymer-Farris, B. A., Bassett, T. J., and Bryceson, I. (2012). Promises and pitfalls of adaptive management in resilience thinking: the lens of political ecology. Em Plieninger, T., and Bielingm, C. (eds.), Resilience and the cultural landscape. Cambridge University Press, Cambridge, pp. 283–299.

Beymer-Farris, B. A. (2013). Producing biodiversity in Tanzania's mangrove forests? A combined political ecology and ecological resilience approach to "sustainably utilized landscapes". Em Brannstrom, C. and Vadjunec, J. M. (eds.). Land change, political ecology, and sustainability. Oxon, Routledge.

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

Candido, A. (1964). Os parceiros do Rio Bonito. José Olympio Editora, Rio de Janeiro.

Castro, D. F., Siqueira, A. D., Brondízio, E. S., and Ferreira, L. C. (2006). Use and misuse of the concepts of tradition and property rights in the conservation of natural resources in the Atlantic forest (Brazil). Ambiente & Sociedade 9(1): 23–39.

Davidson, D. J. (2010). The applicability of the concept of resilience to social systems: some sources of optimism and nagging doubts. Society Nat. Resources 23: 1135–1149.

de Blasis, P., and Robrahn, E. M. (1998). Investigações arqueológicas no Médio/Baixo Vale do Ribeira de Iguape, SP. Revista do MAE 8.

Diegues, A. C. (1998). The myth of untamed nature in the Brazilian rainforest. São Paulo, NUPAUB.

Diegues, A. C. (2007). O Vale do Ribeira e litoral de São Paulo: meio-ambiente, história e população. São Paulo, CENPEC.

Diegues, A. C. (2011). Povos e comunidades tradicionais em áreas de proteção integral no Brasil. Conflitos e direitos. São Paulo, NUPAUB.

Fairhead, J., and Leach, M. (2000). Webs of power: forest loss in Guinea. Seminar in New Delhi, pp. 44–53.

Ferreira, L. C. (2004). Dimensões humanas da biodiversidade: mudanças sociais e conflitos em torno de áreas protegidas no Vale do Ribeira, SP, Brasil. Ambiente & Sociedade 7(1): 47–66.

Figueiredo, L. A. V. (2000). "O meio ambiente prejudicou a gente…" - políticas públicas e representações sociais de preservação e desenvolvimento. Tese de Mestrado, Universidade de Campinas, Brasil.

Forsyth, T., and Walker, A. (2008). Forest guardians, forest destroyers: the politics of environmental knowledge in northern Thailand. University of Washington Press, Seattle.

Fox, J., Truong, D. M., Rambo, T., Tuyen, N. P., Cuc, L. T., and Leiz, S. (2000). Shifting cultivation: a new old paradigm for managing tropical forests. BioScience 50(6): 521–528.

Fundação Florestal. (2010). Plano de manejo do Parque Estadual Turístico do Alto Ribeira (Petar). Capítulo 9: Áreas e temas prioritários de manejo. São Paulo, FF.

Gomez-Pompa, A., and Kaus, A. (1992). Taming the wilderness myth. BioScience 42(4): 271–279.

Guimarães, J. E. P., and LeBret, M. (1966). Grutas calcárias- Estudos espeleológicos no Vale do Alto Ribeira. Secretaria da Agricultura, Instituto Geográfico e Geológico, São Paulo.

Gunderson, L., and Holling, C. S. (eds.) (2002). Panarchy: understanding transformations in human and natural systems. Washington DC, Island Press.

Hanazaki, N., Berkes, F., Seixas, C. S., and Peroni, N. (2013). Livelihood diversity, food security and resilience among the caiçara of coastal Brazil. Human Ecology 41: 153–164.

Holling, C. M. (1986). The resilience of terrestrial ecosystems: local surprise and global change. Em Clark, W. C., and Munn, R. E. (eds.), Sustainable Development of the Biosphere. Cambridge University Press, Cambridge, pp. 292–317.

McKey, D., Elias, M., Pujol, B., and Duputie, A. (2010). The evolutionary ecology of clonally propagated domesticated plants. New Phytologist 186: 318–332.

Munari, L. C. (2009). Memória social e ecologia histórica: a agricultura de coivara das populações Quilombolas do Vale do Ribeira e sua relação com a formação da Mata Atlântica local. Tese de Mestrado, Universidade de São Paulo, Brasil.

Neumann, R. P. (2004). Nature-state-territory. Toward a critical theorization of conservation enclosures. Em Peet, R., and Watts, M. (eds.), Liberation ecologies. Environment, development, social movements, 2nd ed. Routledge, London, pp. 195–217.

Oliveira Jr., A. N., Stucchi, D., Chagas, M. F., and Brasileiro, S. S. (2000). Comunidades negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria Rosa e Pilões. Em Negros do Ribiera: reconhecimento étnico e conquista do território. 2nd edition. São Paulo, ITESP.

Oudenhoven, F. J. W., Mijatovic, D., and Eyzaguirre, P. B. (2011). Social-ecological indicators of resilience in agrarian and natural landscapes. Management of Environmental Quality: An International Journal 22(2): 154–173.

Pedroso Jr., N. N., Murrieta, R. S. S., Taqueda, C. S., Navazinas, N. D., Ruivo, A. P., Bernardo, D. V., and Neves, W. A. (2008). A casa e a roça: socioeconomia, demografia e agricultura em populações Quilombolas do Vale do Ribeira, São Paulo, Brasil. Ciências Humanas 3(2): 227–252.

Pedroso Jr., N. N., Adams, C., and Murrieta, R. S. S. (2009). Slash and-burn agriculture: a system in transformation. Em Lopes, P., and Begossi, A. (eds.), Current trends in human ecology. Cambridge Scholars Press, Newcastle upon Tyne, pp. 12–34.

Penna-Firme, R. (2013). Political and event ecology: critiques and opportunities for collaboration. Journal of Political Ecology 20: 199–216.

Porro, R. (2005). Palms, pastures, and swidden fields: the grounded political ecology of "agro-extractive/shifting-cultivator peasants" in Maranhão, Brazil. Human Ecology 33(1): 17–56.

Prado, H. M., Murrieta, R. S. S., Adams, C., and Brondizio, E. S. (2013). Complementary viewpoints: scientific and local knowledge of ungulates in the Brazilian Atlantic Forest. Journal of Ethnobiology 33(2): 180–202.

Querioz, R. S. (1983). Caipiras Negros no Vale do Ribeira: um estudo de antropologia econômica. Série Antropologia, FFLCH/USP.

Rapoport Center. (2008). Between the law and their land: afro-Brazilian Quilombo communities' struggle for land rights. Rapoport Center for Human Rights and Justice, University of Texas of Austin.

Rerkasem, K., Lawrence, D., Padoch, C., Schmidt-Vogt, D., Ziegler, A. D., and Bruun, T. B. (2009). Consequences of swidden transitions for crop and fallow biodiversity in southeast Asia. Human Ecology 37: 347–360.

Rezende da Silva, S. (2008). Negros na Mata Atlântica, territórios Quilombolas e a conservação da natureza. Tese de doutorado, Universidade de São Paulo, Brasil.

Robbins, P. (2012). Political ecology: a critical introduction. Chichester, Wiley-Blackwell. Rudel, T. K. (2012). The human ecology of regrowth in the tropics. Journal of Sustainable Forestry 31: 340–354.

Russel, E. W. B. (1997). History hidden in the landscape. People and land through time. Linking ecology and history. Yale University Press, New Haven, pp. 3–18.

Sanches, R. A. (2001). Caiçara communities of the southeastern coast of São Paulo State (Brazil): traditional activities and conservation policy of the Atlantic rain forest. Human Ecology Review 8(2): 52–64.

Santos, M. W. (2010). Saberes da terra: o lúdico em Bombas, uma comunidade Quilombola (estudo de caso etnográfico). Tese de doutorado, Universidade de São Paulo, Brasil.

Santos, K. M. P., and Tatto, N. (eds.) (2008). Agenda socioambiental de comunidades Quilombolas do Vale do Ribeira. Instituto Socioambiental, São Paulo.

Schmitt, A., Turatti, M. C. M., and Carvalho, M. C. P. (2002). A atualização do conceito de quilombo: identidade e território nas definições teóricas. Ambiente & Sociedade 5(10): 1–8.

Seixas, C. S., and Berkes, F. (2003). Dynamics of social-ecological changes in a lagoon fishery in southern Brazil. Em Berkes, F., Colding, J., and Folke, C. (eds.), Navigating social-ecological systems: building resilience for complexity and change. Cambridge University Press, New York, pp. 271–298.

Silveira, P. C. B. (2001). Povo da terra, terra do parque: presença humana e conservação de florestas no Parque Estadual Alto Ribeira, SP. Tese de Mestrado, Universidade de Campinas, Brasil.

Silveira, P. C. B. (2003). Relatório técnico científico sobre os remanescentes da comunidade de quilombo de Bombas Iporanga-São Paulo. São Paulo, ITESP (não publicado).

Silveira, P. C. B. (2007). Conflitos socio-ambientais e mobilização de identidade: um estudo na Mata Atlântica. 31 Encontro da ANPOCS de 22 a 26 de outubro. Caxambu, MG.

Stevens, S., and de Lacy, T. (1997). Conservation through cultural survival: indigenous peoples and protected areas. Island Press, Washington DC.

Turner, B. L. (2008). A skeptic's comments on resilience and alternative approaches to coupled human-environment systems. Em Leach, M. E. (ed.), Re-framing resilience: a Symposium Report. STEPS Centre, Institute for Development Studies, Brighton, pp. 1–18.

van Vliet, N., Mertz, O., Heinimann, A., Langanke, T., Pascual, U., Schmook, B., Adams, C., Schmidt-Vogt, D., Messerli, P., Leisz, S., Castella, J.-C., Jørgensen, L., Birch-Thomsen, T., Hett, C., Bruun, T. B., Ickowitz, A., Chi Vu, K., Yasuyuki, K., Fox, J., Padoch, C., Dressler, W. D., and Ziegler, A. D. (2012). Trends, drivers and impacts of changes in swidden

cultivation in tropical forest-agriculture frontiers: a global assessment. Global Environmental Change 22: 418–429.

Widlock, T., Aufgebauer, A., Bradtmöller, M., Dikau, R., Hoffmann, T., Kretschmer, I., Panagiotopoulos, K., Pastoors, A., Peters, R., Schäbitz, F., Schlummer, M., Solich, M., Wagner, B., Weniger, G., and Zimmermann, A. (2012). Towards a theoretical framework for analyzing integrated socio-environmental systems. Quaternary International 274: 259–272.

Zimmerer, K. S. (2000). The reworking of conservation geographies: nonequilibrium landscapes and nature society hybrids. Annals of the Association of American Geographers 90: 356–69.

Annex 2: Paper 3 Translated into Portuguese

Justiça em uma Relação Desigual?
Negociações Entre o Quilombo de Bombas e o Parque Estadual Turístico do Alto Ribeira, Brasil

Este artigo foi publicado originalmente em inglês na revista Society and Natural Resources: An International Journal (2016) **29(1)**: 20-35, DOI: 10.1080/08941920.2015.1024809

KJERSTI THORKILDSEN

Department of International Environment and Development Studies/ Noragric, the Norwegian University of Life Sciences (NMBU), P. O. Box 5003, 1432 Aas, Noruega. Email: kjersti.thorkildsen@nmbu.no

A implementação de áreas protegidas no Brasil causa frequentemente pobreza e injustiça aos povos da floresta. Com a aprovação da Constituição de 1988 restabelecendo a democracia, diversas reivindicações por acesso a recursos, reconhecimento de identidades étnicas e participação em tomada de decisões ambientais foram levantadas por povos tradicionais. Utilizando-se de uma abordagem de justiça ambiental, o presente artigo analisa os espaços e processos de negociação sobre unidades de conservação de proteção integral, através do exame da reivindicação territorial da comunidade quilombola de Bombas, localizada dentro do Parque Estadual Turístico do Alto Ribeira, São Paulo. O artigo argumenta que práticas e discursos excludentes foram empregados pelo aparato estatal brasileiro, impedindo o reconhecimento da identidade quilombola, realização dos seus direitos territoriais e acesso ao desenvolvimento de infraestrutura. As reuniões de negociações foram um fórum para desafiar os desequilíbrios de poder, mas não foram capazes de abrir espaço para uma participação significativa dos quilombolas de forma a influenciar a agenda e as decisões principais.

Palavras-chave: comunidades *quilombolas*, áreas protegidas, negociação, justiça ambiental, Brasil

A expropriação de povos da floresta durante o estabelecimento de áreas protegidas é um fenômeno mundial, inspirado pela criação do Parque Nacional Yellowstone, em 1872, nos Estados Unidos (Brockington et al. 2008). Esta abordagem preservacionista de conservação (*fortress approach*), que separa humanos da natureza, é sustentada por discursos ambientais retratando atividades humanas como "destrutivas" e moradores como "invasores" (Forsyth e Walker 2008, Beymer-Farris e Bassett 2012, West et al. 2006). Esta representação a-histórica de paisagens, que Diegues (1998) chama de "mito da natureza intocada", não reconhece que áreas de alto valor botânico e de vida silvestre frequentemente co-evoluem com atividades humanas e dependem de sua continuidade. No Brasil, a maior parte de unidades de conservação sem presença humana foi criada durante a ditadura militar (1964–1985)[1], causando pobreza e injustiça a povos indígenas, quilombolas[2] e outros que habitam em áreas protegidas, e que carregam o ônus da restrição ao acesso e uso de recursos naturais, bem como da perda de direitos territoriais consuetudinários (Ferreira 2004, Diegues 2011, Barreto Filho 2004).

No contexto da abertura democrática, em meados dos anos 1980, organizações não governamentais (ONGs) brasileiras comprometidas com a defesa de direitos humanos e sociais começaram a defender os interesses de povos que habitavam áreas protegidas, e as populações afetadas começaram a assumir um papel mais ativo no estabelecimento de organizações próprias (Esterci and Fernandez 2009). Esses esforços culminaram em uma Constituição mais democrática sendo aprovada em 1988, valorizando tanto a diversidade biológica como cultural. Além de incluir um capítulo sobre meio ambiente (título VII, capítulo VI), a Constituição reconhece o caráter multiétnico, multicultural e multi-linguístico do país, e garante direitos territoriais coletivos a povos indígenas e quilombolas[3], proibindo, assim, sua remoção de seus territórios ancestrais no caso de criação de áreas protegidas (Santilli 2010). Outro passo

[1] As forças armadas deram um golpe de estado em 1964, com apoio dos Estados Unidos, derrubando o Presidente João Goulart, democraticamente eleito.
[2] Quilombo é um assentamento afro-brasileiro formado principalmente por escravos fugitivos ou libertados nos séculos XVIII e XIX, bem como ex-escravos após a abolição da escravatura em 1888. Os moradores, quilombolas, adquiriam terras por doação ou herança, ou ocupavam terras devolutas ou abandonadas.
[3] Artigo 68 do Ato das Disposições Constitucionais Transitórias: "Aos remanescentes das comunidades dos quilombos que estejam ocupando suas terras é reconhecida a propriedade definitiva, devendo o Estado emitir-lhes os títulos respectivos"

importante no sentido de práticas sociais e ambientais mais justas de conservação foi a aprovação da lei do Sistema Nacional de Unidades de Conservação (SNUC) em 2000, que criou uma estrutura para o estabelecimento de áreas de uso sustentável, que permitem assentamentos humanos e uso de baixo impacto de recursos naturais por populações tradicionais[4] (Medeiros 2006, Penna-Firme and Brondizio 2007). Ademais, o SNUC assegura a participação de populações locais no estabelecimento, implementação e gestão de áreas protegidas. A despeito do *status* constitucional dos direitos territoriais de povos indígenas e quilombolas, e das regras mais inclusivas de tomada de decisão em matéria ambiental, o presente artigo argumenta que processos de exclusão social ainda são correntes dentro do aparato estatal brasileiro, impedindo o reconhecimento de identidades étnicas e participação efetiva. No presente artigo, utilizo uma abordagem de justiça ambiental para explorar os espaços e processos de negociação sobre áreas de proteção integral, através do exame da reivindicação territorial do quilombo de Bombas, sobre o qual se sobrepõe o Parque Estadual Turístico do Alto Ribeira (PETAR), em São Paulo.

Justiça Ambiental como uma Abordagem Investigativa

O conceito de justiça ambiental tem origem nos movimentos de direitos civis nos anos 1960 e nos debates sobre racismo ambiental nos anos 1970, nos Estados Unidos, que questionavam o acesso desigual a recursos e a exposição desproporcional a poluição perigosa de comunidades particularmente pobres e negras (e.g. Lazarus 1993, Bullard e Wright 1990). O foco inicial dos movimentos de justiça ambiental e de acadêmicos sobre a dimensão distributiva da justiça tem sido recentemente criticado por ter negligenciado a relevância da estrutura social e do contexto institucional nos padrões de distribuição. Como resposta a essa lacuna, o conceito de justiça ambiental tem sido estendido materialmente, espacialmente e politicamente para produzir um enquadramento mais dinâmico para ativismo, pesquisa e política (Walker 2009, Schlosberg

[4] Povos e Comunidades Tradicionais: grupos culturalmente diferenciados e que se reconhecem como tais, que possuem formas próprias de organização social, que ocupam e usam territórios e recursos naturais como condição para sua reprodução cultural, social, religiosa, ancestral e econômica, utilizando conhecimentos, inovações e práticas gerados e transmitidos pela tradição; (Decreto 6.040/2007, Política Nacional de Desenvolvimento Sustentável dos Povos e Comunidades Tradicionais).

2007, Schroeder et al. 2008, Sundberg 2008, Zerner 2000). Iris Young (1990) e Nancy Fraser (1998) foram os primeiros acadêmicos de justiça social a chamar atenção para os processos fundamentais subjacentes (e as estruturas de poder, relações sociais, configurações institucionais e discursos associados) que geram má distribuição de forma a compreender e remediar a inequidade. Young critica a forma como as teorias de justiça distributiva enxergam bens como estáticos, ao invés de considera-los resultados de diferentes relações sociais e institucionais. Ela afirma que parte do motivo da distribuição injusta é a falta de reconhecimento de diferenças de grupos, nas esferas social e política, demonstrada por diversas formas de insulto, degradação e desvalorização. Da mesma forma, Fraser argumenta que o reconhecimento de diferenças culturais é legítimo e necessário para desafiar a inequidade. Isso é particularmente relevante para povos indígenas e tradicionais que reivindicam o reconhecimento de identidades coletivas e proteção de suas culturas, modos de vida e territórios.

Tanto Young como Fraser também ressaltam a conexão direta entre a falta de reconhecimento e participação na ordem política e institucional. Se você não é reconhecido, você não participa, e portanto não exerce influência na tomada de decisão sobre a distribuição de bens sociais e ambientais (Young 1990, Fraser 1998). Justiça social exige portanto não apenas um entendimento dos padrões de distribuição injusta e falta de reconhecimento, mas também como estes estão entrelaçados em processos políticos e sociais (Schlosberg 2007). Quando "padrões de desrespeito e desprezo são institucionalizados" (Fraser 1998), desigualdades em participação e exclusões surgem em instituições e processos de tomada de decisão (Urkidi e Walter 2011). Baseado nisso, Schlosberg (2007) propõe que a justiça ambiental, como abordagem investigativa, deveria focar no processo político para considerar tanto a distribuição desigual de bens sociais e ambientais, como as condições que debilitam o reconhecimento e a participação.

Com base nessa literatura, o presente artigo analisa as diferentes dimensões de justiça ambiental no contexto de um processo de negociação sobre uma parte habitada por quilombolas dentro de uma área protegida. A atenção ao reconhecimento da identidade étnica dos quilombolas, associada a questões de distribuição e participação, é crucial para examinar a luta dos moradores de Bombas pelos seus direitos e recursos dentro do PETAR. No Brasil, classe social e cor são variáveis críticas na estruturação da desigualdade, de forma que a falta de acesso a educação, saúde, incentivos econômicos e recursos territoriais é mais aguda entre comunidades rurais, negras e pobres (Hooker 2005, Rapoport 2008). Na medida em que o acesso a direitos territoriais e reconhecimento cultural não pode ser alcançado com base

unicamente em sua posição social ou *status* marginal, muitas comunidades negras marginalizadas passaram a reclaram a identidade étnica quilombola, abrindo assim espaços políticos estratégicos de negociação com o Estado (Penna-Firme e Brondizio 2007). Evidenciando as raízes históricas dos quilombos no Vale do Ribeira e interações, passadas e presentes, entre a comunidade de Bombas e o Estado, pretendo demonstrar como a articulação da identidade étnica quilombola é um processo que está intimamente entrelaçado em processos históricos, políticos e ambientais (Sundberg 2008). Ademais, a ênfase na marginalização histórica juntamente com as relações sociais, configurações institucionais e discursos contemporâneos fornecem um contexto crítico para compreender por que os moradores de Bombas foram impedidos de participar integralmente das decisões que afetam suas vidas (Harvey 1996, Young 1990, Fraser 1998).

Métodos

Os dados empíricos apresentados e analisados neste artigo são baseados em trabalho de campo etnográfico no quilombo de Bombas, localizado no município de Iporaga, estado de São Paulo. Observação participativa com registro em diário de campo aconteceu entre o outono de 2010 e a primavera de 2011. Ademais, 30 entrevistas abertas e detalhadas foram conduzidas com diferentes pessoas, tais como moradores e ex-moradores de Bombas, lideranças de outros quilombos nos municípios de Iporanga e Eldorado (que detém a maior concentração de quilombos no estado de São Paulo), autoridades governamentais, políticos, advogados, pesquisadores e representantes de ONGs, movimentos sociais e ordens religiosas[5] (2010 – 2013). Todas as entrevistas foram feitas em português, gravadas e transcritas. Dados foram também adquiridos através da participação, entre 2010 e 2013, em 12 reuniões comunitárias, e reuniões entre moradores de Bombas e autoridades governamentais, pesquisadores e representantes de organizações da sociedade civil, pautadas especificamente na negociação

[5] Equipe de Articulação e Assessoria às Comunidades Negras do Vale do Ribeira (EEACONE), Instituto Socioambiental (ISA), Instituto Terra, Trabalho e Cidadania (ITTC), Ministério Público Federal (MPF), Instituto de Terrras de São Paulo (ITESP), Instituto Nacional de Colonização e Reforma Agrária (INCRA), Parque Estadual Turístico do Alto Ribeira (PETAR), Fundação Florestal (FF), Reserva da Biosfera da Mata Atlântica (RBMA), Escola Superior de Agronomia "Luiz de Queiroz"/Universidade de São Paulo (ESALQ/USP).

sobre os direitos territoriais de Bombas. Isso permitiu ganhar uma percepção sobre os comportamentos, ações e interações dos diferentes atores. Atas de reuniões, bem como conversas formais e informais com atores envolvidos, também contribuiram para desvendar como os padrões e as estruturas de exclusão operaram no processo de negociação entre Bombas e o PETAR.

A Comunidade de Bombas e seu Primeiro Encontro com o Estado

Bombas está localizada no Alto Ribeira, aproximadamente a 10 km da cidade de Iporanga, em uma paisagem cárstica e acidentada coberta por Mata Atlântica densa. É o quilombo mais isolado geograficamente no estado de São Paulo, e um dos mais excluídos social, economica e politicamente (Santos e Tatto 2008). A comunidade consiste em 17 famílias engajadas em atividades de subsistência de pequena escala, como agricultura de coivara, hortas domésticas, criação de animais, caça, pesca e coleta de produtos florestais. Os moradores atuais de Bombas têm ascendência africana comum às outras comunidades hoje oficialmente reconhecidas como quilombo, como por exemplo Nhunguara, Praia Grande e Porto Velho, no estado de São Paulo, e João Surá no estado do Paraná (Andrade e Tatto 2013). De acordo com Silveira (2003), a formação da comunidade de Bombas aconteceu nos anos 1910, por ex-escravos e descendentes de escravos que haviam sido importados ao Vale do Ribeira de diferentes países africanos por colonizadores portugueses no século XVII, primordialmente para o garimpo de ouro. Muitos escravos foram libertados ou abandonados com o fim do garimpo e subsequentes ciclos econômicos no século XVIII (Oliveira Jr et al. 2000). Mesmo assim, negros eram vistos como inferiores e incapazes de assumir os direitos e responsabilidades de um cidadão, sendo portanto considerados tutelados pelo Estado até a abolição da escravatura. Cunha (1987) argumenta que a dificuldade dos libertos de obter espaço social devia-se basicamente ao fato de negros e escravos serem vistos como categorias coexistentes. Devido à discriminação e preconceito racial, muitos libertos formaram comunidades em áreas remotas de difícil acesso. Hoje, 88 comunidades quilombolas vivem no Vale do Ribeira (Andrade e Tatto 2013).

À época do assentamento da comunidade de Bombas, um grande número de grutas calcárias abrigando uma rica biodiversidade foi descoberto no Alto Ribeira, levando ao endosso da conservação ambiental (Krone 1950). Isso foi reforçado pelo desejo de organizações ambientalistas nacionais e internacionais em proteger o maior remanescente de Mata Atlântica brasileira, de 2,1 milhões de hectares, localizado no Vale do Ribeira, que representa 21% do

total nacional[6] (Santos e Tatto 2008). Em 1958, o Parque Estadual do Alto Ribeira (PEAR) foi criado, com 357.000 hectares, como a primeira área protegida do estado de São Paulo.[7] Ficaram proibidos o uso e a ocupação humana, inclusive todas as atividades de subsistência da terra que os moradores de Bombas mantinham (Marinho e Furlan 2007, Karmann e Ferrari 2002). Dois anos depois, a área foi rebatizada de Parque Estadual Turístico do Alto Ribeira (PETAR), para permitir o turismo.[8] A totalidade do território histórico de Bombas foi englobada pelo PETAR devido à alta cobertura florestal atântica, abundantes nascentes de água e inúmeras grutas calcárias, que abrigam uma espécie endêmica de bagre albino, *Pimelodella kronei*, um dos principais alvos de conservação estampado no próprio logotipo do parque (Thorkildsen 2014).

A despeito do estabelecimento da área de proteção integral do PETAR, medidas de expropriação e realocação de moradores não foram tomadas devido à falta de recursos financeiros, tornando-o um chamado "parque de papel". Apenas em 1987 autoridades florestais iniciaram a implementação do PETAR, empregando meios autoritários e coercitivos (Sundberg 2008). Guarda-parques demarcaram os limites e a polícia ambiental aplicava as regras do parque, desconsiderando as normas consuetudinárias existentes (Ostrom 2011). Nenhuma autoridade do estado havia sequer visitado Bombas para informar os moradores sobre a criação do PETAR antes dos guarda-parques e da polícia aparecerem, aplicando multas por crimes ambientais. Os moradores eram frequentemente encorajados a abandonar suas terras, sob o argumento de que estavam ilegalmente ocupando a área, e de que aquele era um lugar perigoso para morar devido às formações cársticas que poderiam colapsar a qualquer momento. Embora a cobertura florestal de Bombas não fosse o foco da vigilância ambiental, os moradores passaram a temer o "meio ambiente", como se referem às autoridades florestais, com receio de que suas roças fossem denunciadas e suas espingardas confiscadas (Thorkildsen 2014). As pessoas de fora em visita à comunidade passaram a ser vistas como potenciais delatoras de

[6] De sua extensão original de 129 milhões de hectares, restam entre 11.4% e 16%, dependendo da inclusão no cálculo de florestas secundárias e pequenos fragmentos (<100ha) (Ribeiro et al. 2009). Embora seja um dos biomas mais ameaçados do mundo, a Mata Atlântica é considerada um dos cinco mais importantes *hotspots* de biodiversidade no mundo (Myers et al. 2000).

[7] Através do decreto estadual 32.283, de 19/05/1958.

[8] Em resposta a pressões de interesses minerários, a área do PETAR foi reduzida para 351.000 hectares em 1969, através do decreto 14.321.

crimes ambientais, e os moradores passaram a desconfiar de qualquer um que aparecesse na comunidade.

A resistência ao PETAR não era expressa tanto por meio do confronto, mas por "formas cotidianas de resistência" (Scott 1985). Os moradores de Bombas procuravam formas de evitar os regulamentos do parque, dando continuidade à maioria de suas práticas de subsistência em áreas escondidas, com menor visibilidade (Ostrom 2011). Ainda assim, as ameaças de remoção, o receio de engajar em atividades tradicionais de subsistência e a falta de alternativas para geração de renda na comunidade resultaram no êxodo de vários moradores, em busca de uma vida melhor lá fora. O número de famílias que viviam em Bombas nos anos 1970 (cerca de 80) caiu drasticamente nos anos 1990, em razão da implementação do PETAR (Silveira 2003). O êxodo rural, particularmente da geração mais jovem, reduziu significativamente a população, reduzindo também a participação em trabalhos coletivos e atividades comunitárias, e dificultando a resistência das pessoas em persistir em seu território. A ausência de acesso por estradas, eletricidade, linhas de comunicação, saneamento básico, e os parcos serviços de educação e saúde complicaram ainda mais a continuidade dos modos de vida. Estes serviços foram a eles negados pelo estado na medida em que eram considerados ocupantes ilegais dentro de uma área protegida, o que levou ao abandono. O reconhecimento é portanto a chave, na medida em que há uma história a se resgatar e uma dignidade a se reafirmar (Young 1990).

Reconhecimento Quilombola como Arma Contra a Exclusão

Em 1988, quando o Brasil celebrava o fim de duas décadas de ditadura militar e o centenário da abolição da escravatura, dispositivos sobre quilombos, multiculturalismo e anti-discriminação foram incluídos na nova Constituição Federal, com o objetivo de resgatar marginalizações históricas e inequidades raciais (Dagnino 2005). Esses dispositivos foram importantes para garantir aos quilombolas o direito sobre as terras tradicionalmente ocupadas, e para promover um reconhecimento mais geral de seus direitos junto à sociedade brasileira. O processo administrativo de reconhecimento quilombola, regulado através do decreto presidencial 4.887/2003[9], garante a participação dos quilombolas em todas as etapas, que incluem: autoidentificação; estabelecimento de uma associação quilombola; laudo antropológico avaliando a autenticidade das reivindicações a uma ancestralidade quilombola;

[9] Launched on November 20 on Brazil's National Black Awareness Day.

delimitação do território histórico; reconhecimento oficial; demarcação e regularização fundiária; e registro de título sobre a terra (Arruti 2006).

No Vale do Ribeira, Ivaporunduva foi a primeira comunidade a reivindicar o reconhecimento quilombola e a titulação de terras a um tribunal federal em São Paulo, em 1995. Juntamente com as comunidades de Maria Rosa, Pedro Cubas, Pilões e São Pedro, foi oficialmente reconhecida em 1998. A reivindicação dessas comunidades pela titulação de suas terras foi uma estratégia contra a grilagem violenta de terras, contra o estabelecimento de áreas de proteção integral sobrepostas a seus territórios, e contra a construção de hidrelétricas no rio Ribeira de Iguape, que ameaçavam inundar seus territórios (Oliveira Jr et al. 2000, Adams et al. 2013). Inspirados por esses e outros quilombos no Vale do Ribeira, os moradores de Bombas passaram a considerar o reconhecimento quilombola para contestar a restrição de acesso e uso de recursos naturais, e pressionar por seus direitos territoriais. Parte do grupo duvidava do que esse reconhecimento poderia trazer; pensavam que poderia ser um novo mecanismo para expropriação de suas terras, da mesma forma como o PETAR havia sido, e receavam que fosse apenas mais um truque de um estado repressor para negar seus direitos históricos (Silveira 2007). No entanto, a maioria dos membros da comunidade veio a apoiar essa opção em 2001, entendendo que um quilombo poderia reivindicar legalmente direitos territoriais mesmo que estivesse encravado dentro de uma área de proteção integral. Se reconhecido, os limites do PETAR poderiam ser alterados através de um projeto de lei excluindo o território de Bombas do parque, ou alternativamente a área sobreposta poderia ser reclassificada como Área de Proteção Ambiental (APA), que permite ocupação humana e atividades, conforme a legislação do SNUC.[10] Em ambos os casos, a comunidade quilombola obteria a propriedade coletiva da terra. Ademais, os moradores de Bombas estariam aptos a receber benefícios de programas

[10] Doze outros quilombos no Vale do Ribeira foram classificados como APA em 2008, criando a APA dos Quilombos do Médio Ribeira, incluída no Mosaico do Jacupiranga.

governamentais dirigidos especificamente a comunidades quilombolas, e assistência técnica do Instituto de Terras de São Paulo (ITESP).

Os moradores de Bombas entraram na arena pública pela primeira vez na história em 2002, quando reivindicaram o reconhecimento como quilombo e seus direitos territoriais.[11] Isso deflagrou um resgate da memória social de ancenstralidade e da história da escravatura, que haviam sido reprimidas devido à discriminação racial (Penna-Firme e Brondizio 2007). A esta altura, alguns moradores já se autodenominavam como quilombola, enquanto outros permaneciam reticentes, ainda que tivessem concordado com o processo. Na primeira visita do ITESP, responsável pela condução do laudo antropológico exigido para o reconhecimento oficial, os moradores estavam divididos e solicitaram tempo para esclarecer dúvidas. Este é um exemplo de como a formação da identidade étnica é marcada pela continuidade e mudança, e sempre no processo de ser constituída e contestada (Sundberg 2008). Após inúmeras discussões internas, a comunidade finalmente chegou a um acordo e organizou formalmente a associação quilombola de Bombas em 2004. Silveira (2003) admite que, ao longo de todo o processo de pesquisa para o laudo antropológico, os moradores de Bombas se mostraram céticos, mas colaboraram tanto na pesquisa como na delimitação do território. Fronteiras naturais foram usadas como marcadores para a delimitação do território, e todas as nascentes de água correndo para dentro do vale de Bombas foram incluídas. O território de Bombas compreendia terra que era permanentemente habitada, terra utilizada para atividades produtivas, terras essenciais para a preservação dos recursos naturais, e terra necessária para a reprodução física e cultural de seus moradores, de acordo com o critério legal do processo de demarcação (Santilli 2010, Silveira 2003). A área total do território delimitado de Bombas era de 3.050 hectares.

O Relatório Técnico-Científico do ITESP, baseado no estudo antropológico, concluiu que Bombas se enquadra adequadamente nos critérios legais para o devido reconhecimento, apontando para a existência de uma identidade étnica, território étnico, um mito de origem, uma memória quilombola de resistência a opressões históricas sofridas, e elementos significativos da cultura negra tradicional (Silveira 2003). Não obstante, este relatório não chegou a ser publicado, na medida em que o processo de reconhecimento foi suspenso pela Secretaria de Meio Ambiente de São Paulo, que demandava estudos ambientais[12] do território de Bombas devido à sua localização dentro de uma unidade de proteção integral. Esta condição foi baseada

[11] ITESP processo 1186/2002.

[12] Avaliação dos indicadores físicos, biológicos e antrópicos indicando impactos socio-ambientais da alteração dos limites do parque ou reclassificação de categorias de conservação.

em uma decisão informal que havia sido tomada no âmbito do Grupo de Trabalho de Quilombos, encarregado de emitir reconhecimento oficial e que consistia de representantes de sete agências estatais e encabeçado pela Secretaria de Justiça e Defesa da Cidadania do estado de São Paulo. Por outro lado, o processo de reconhecimento como quilombo não exige estudos ambientais. O decreto presidencial 4.887/2003 declara a autoidentificação como o critério determinante para ser quilombola, assim como a Convenção 169 da OIT, ratificada pelo Brasil em 2002 (Santilli 2010, Penna-Firme e Brondizio 2007). Mesmo assim, como era de interesse das autoridades ambientais interferir na definição do território de Bombas, eles estabeleceram estudos ambientais como uma pré-condição para o reconhecimento como quilombo, crucial para obter a titulação da terra, controle da comunidade sobre os recursos naturais, e acesso a benefícios.

Devido ao histórico de marginalização e exclusão pelo estado, e a relação tensa com autoridades ambientais, os moradores de Bombas impediram a entrada de pesquisadores para realizar os estudos ambientais em seu território. Eles não confiavam que as autoridades ambientais dariam opinião favorável ao reconhecimento quilombola, por causa do interesse em manter sob estrita proteção as cavernas que abrigam o bagre cego. Em diversas ocasiões, autoridades florestais já haviam acusado os moradores de Bombas de representar uma ameaça à sobrevivência da espécie. Assessorada pela Equipe de Articulação e Assessoria às Comunidades Negras do Vale do Ribeira (EEACONE), que presta assistência jurídica às comunidades quilombolas desde 2004, a associação quilombola de Bombas demandou uma garantia do reconhecimento antes da realização dos estudos ambientais. A Secretaria de Meio Ambiente não recuou em sua demanda, e o impasse durou até 2010. Muitos dos entrevistados de Bombas afirmaram que a inércia do estado era uma estratégia para fazer os moradores

abandonarem seu território, até que não houvesse mais ninguém para reivindicar direitos territoriais.

O Processo de Negociação Entre Bombas e o PETAR

Protocolo de Intenção e Plano de Trabalho

A ONG Instituto Socioambiental (ISA)[13] começou a trabalhar com Bombas em 2006 a partir de um projeto de planejamento estratégico para uso sustentável de territórios quilombolas (Santos e Tatto 2008). Apesar da relutância dos moradores de Bombas diante de novos atores sociais, nascida da experiência negativa com o estado, o *status* do ISA como uma ONG independente sem fins lucrativos e a boa relação da organização com outras comunidades quilombolas no Vale do Ribeira e com a EEACONE contribuíram para a construção de laços de confiança. Quando a Fundação Florestal (FF) (responsável pela administração do PETAR) iniciou em 2008 estudos ambientais para o plano de gestão do parque, o ISA convenceu os moradores de Bombas a pressionar para o reconhecimento quilombola e para a negociação de direitos territoriais, na medida em que a FF também precisava realizar estudos dentro de Bombas. Esta ideia foi reforçada em 2010 quando a Resolução 29 da Secretaria de Meio Ambiente foi publicada, determinando pela primeira vez estudos ambientais a serem realizados em situações onde unidades de proteção integral se sobrepõe a territórios quilombolas, e regulando o processo de alteração de limites e reclassificação de categorias de conservação. Com ISA como mediador e EEACONE como assessoria jurídica, a associação quilombola de Bombas aceitou negociar com FF e ITESP. Um primeiro encontro entre a associação quilombola, autoridades estatais, intermediários e outros interessados aconteceu em janeiro de 2010, para discutir os diferentes interesses dos atores e instituições envolvidos (Tabela 1). Nesta reunião, a associação quilombola de Bombas desafiou a exclusão institucionalizada, a cultura do não reconhecimento, e os padrões de distribuição. E corroborou o argumento de Schlosberg (2007) de que comunidades sujeitas a injustiças ambientais integram demandas por equidade, reconhecimento e participação em uma demanda ampla por justiça.

[13] O ISA foi fundado em 1994 e é uma organização de referência no tema de direitos indígenas e quilombolas no Brasil.

Tabela 1. Atores e instituições envolvidos na demanda de Bombas e seus interesses expressos

	Atores e instituições	Interesses expressos
Comunidade local	• Associação Quilombola de Bombas	• Legalizar moradia e uso de recursos através do reconhecimento como quilombo e excluir sua terra ancestral dos limites do PETAR • Acesso a serviços sociais e infraestrutura para melhorar as condições de vida e facilitar o início de alternativas de geração de renda
Autoridades florestais	• Secretaria de Meio Ambiente de São Paulo (SMA) • Fundação Florestal (FF) • Parque Estadual Turístico do Alto Ribeira (PETAR) • Reserva da Biosfera da Mata Atlântica (RBMA)	• Manter controle sobre o PETAR por causa de seu alto valor de conservação (Mata Atlântica, grutas calcárias e o bagre cego) • Realização de estudos ambientais dentro de Bombas para o Plano de Gestão do PETAR
Outras agências governamentais	• Secretaria de Justiça e Defesa da Cidadania (SJDC) • Instituto de Terras de São Paulo (ITESP)	• Avanço do processo de reconhecimento quilombola e titulação • Serviço de assistência técnica à comunidade de Bombas para início de projetos de geração de renda
Organizações mediadoras da sociedade civil	• Instituto Socioambiental (ISA) • Equipe de Articulação e Assessoria às Comunidades Negras do Vale do Ribeira (EEACONE)	• Avanço do processo de reconhecimento quilombola e titulação • Acesso a serviços sociais, infraestrutura e melhoria de vida dos moradores de Bombas

Em uma segunda reunião realizada em setembro de 2010, a associação quilombola aceitou a realização do estudo ambiental, a partir de orientação do ISA. Depois de a FF ter elaborado um Protocolo de Intenções e um Plano de Trabalho, os membros da comunidade novamente se encontraram, em novembro, com ISA e EEACONE para discutir os documentos e sugerir ajustes. A associação de Bombas expressou que "o invasor é o Parque, não nós", reivindicando o reconhecimento de sua presença antes do estabelecimento do Parque. Assim agindo, os

moradores contestaram o discurso de Bombas como uma floresta "intocada" sem presença humana, opondo-se à realocação (Diegues 1998). Ademais, a associação reivindicou equidade procedimental através de um "lugar na mesa", demandando participação no trabalho de campo, na elaboração do relatório de pesquisa, e na decisão final sobre o território, para assegurar uma negociação mais justa (Fraser 1998, Schlosberg 2007). De acordo com Schlosberg (2007), a reivindicação por este tipo de participação autêntica, de base comunitária, advém de uma experiência de usurpação que é resultado do não reconhecimento. As demandas quilombolas foram aceitas pela FF, e o Protocolo de Intenções e o Plano de Trabalho foram assinados pela FF, ITESP e a associação quilombola de Bombas em dezembro de 2010.[14]

Estudo Ambiental

Uma equipe de pesquisa da Escola Superior de Agricultura Luiz de Queiroz (ESALQ) foi contratada pela FF para realizar os estudos ambientas em Bombas. Doze alunos do curso de Engenharia Florestal foram selecionados para a coleta da maior parte dos dados. Uma reunião foi agendada para fevereiro de 2011, mas o administrador do PETAR e os pesquisadores não compareceram. Nenhuma notificação foi enviada sobre o cancelamento, e os moradores de Bombas reclaram que as reuniões sempre eram atrasadas ou, como esse caso, canceladas sem o conhecimento deles. Tampouco foram providenciados o rancho e o equipamento prometidos, necessários para os dias em que a equipe estaria fazendo trabalho de campo. Ademais, a equipe de pesquisa não conseguiu completar os estudos dentro do prazo. O relatório final "Análise de Sustentabilidade da Comunidade de Remanescentes de Quilombo do Bairro Bombas - Subsídios para a Desafetação da Área de Sobreposição do Parque Estadual Turístico do Alto Ribeira" foi apresentado à FF em março de 2012, com oito meses de atraso. De outro lado, os moradores de Bombas cumpriram com todos os compromissos assumidos. A forma desequilibrada como os compromissos institucionais funcionavam para as autoridades estatais e a associação quilombola ilustra como esses atores detinham um poder desigual (Lukes 2005). O abuso da posição mais poderosa das autoridades florestais, expresso nas repetidas quebras de

[14] Processo ITESP 704/2010.

promessas, desrespeitava os quilombolas e suas reivindicações legítimas, e fez com que os moradores de Bombas perdessem a confiança nas autoridades estatais.

Proposta de Território

A proposta territorial de Bombas foi apresentada pela FF em junho de 2012, um ano após o plano original. Contrariamente ao território definido pelo ITESP de 3.050 hectares, a FF apresentou uma proposta reduzindo o território de Bombas para 2.402 hectares (Figura 1). Nessa proposta, a FF excluiu a área do Córrego Grande, baseada nas boas condições da Mata Atlântica e na existência de fontes de água que fluiam para dentro da caverna de Areias, onde o bagre cego mora. A FF alegava que as cavernas de Areias e Bombas representam dois entre três hotspots de biodiversidade tropical subterrânea no Brasil, e entre 21 no mundo todo, e que necessitavam, portanto, de proteção integral (Culver e Pipan 2009). A associação quilombola não aceitou a proposta da FF, argumentando que o Córrego Grande é parte de seu território histórico e de sua identidade. Ancestrais de moradores mantinham roças no Córrego Grande, e o uso e ocupação da área podem ser confirmados pela presença de árvores frutíferas plantadas, remanescentes de construções e trilhas históricas usadas para comunicação com o quilombo de Porto Velho e com as comunidades tradicionais de Anta Gorda e Pavão (Andrade e Tatto 2013). Eles também argumentavam que a área era coberta por Mata Atlântica secundária em estágio avançado de regeneração justamente porque a comunidade sempre preservara a área, contestando assim o discurso que os rotulava como "destruidores de florestas". Os moradores de Bombas assumiam um discurso de sustentabilidade ambiental, valorizando-os como guardiães legítimos da biodiversidade, em busca da proteção de seus direitos (Penna-Firme e Brondizio 2007, Sundberg 2008). Alternativamente, a associação quilombola propôs transformar o Córrego Grande em uma Reserva Particular do Patrimônio Natural (RPPN)[15] dentro do território de Bombas. Na reunião seguinte entre os atores envolvidos, em julho de

[15] RPPN é uma área protegida criada por iniciativa do proprietário privado, que assume a responsabilidade de conservar a natureza.

2012, a FF aceitou esta proposta, reconhecendo integralmente o território histórico de 3.050 hectares, correspondente à proposta do ITESP. A reunião terminou com uma salva de palmas.

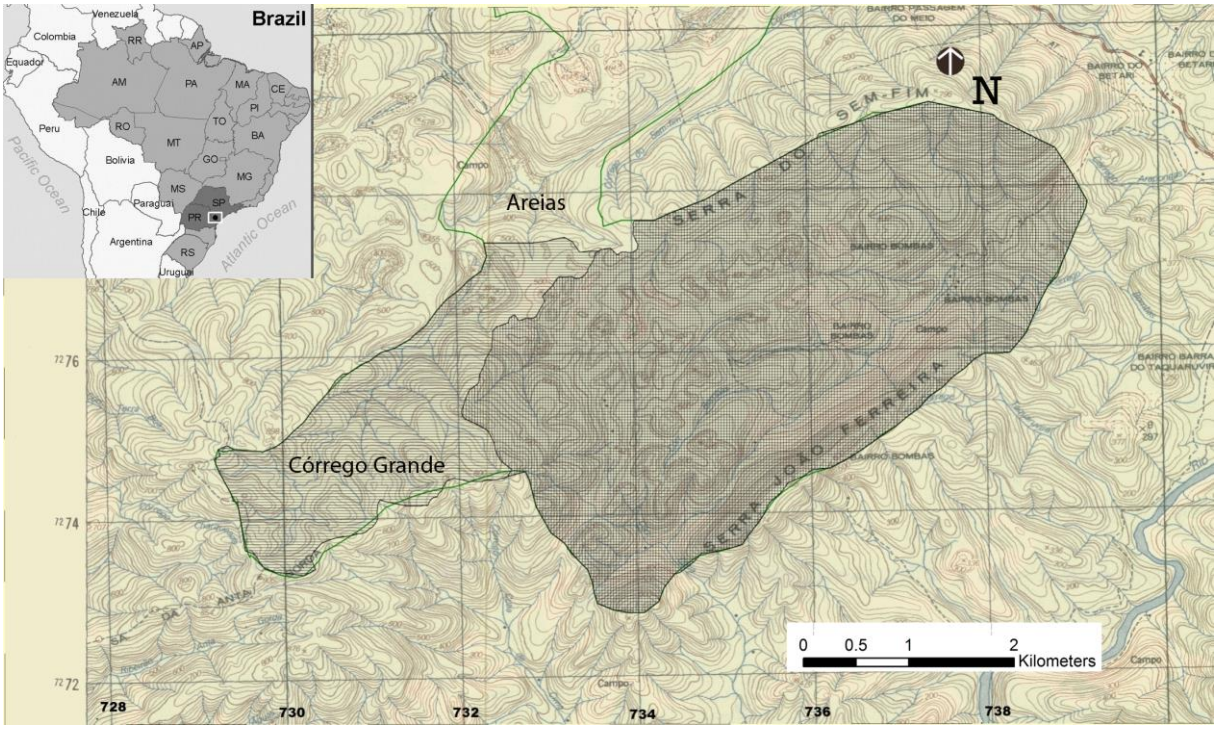


Figura 1. Território de 3.050 hectares conforme indicado pelos membros da comunidade de Bombas no Relatório Técnico-Científico do Instituto de Terras de São Paulo (ITESP), baseado em laudo antropológico (destacado em cinza claro e escuro) *versus* território de 2.402 hectares conforme indicado pela Fundação Florestal (FF), baseado em estudo ambiental (destacado em cinza escuro). Fonte: Fundação Florestal, apresentado em reunião em junho de 2012.

O acordo, no entanto, nunca foi cumprido. O diretor e o gerente da FF que haviam acompanhado a negociação desde o início, em 2010, foram demitidos pelo presidente da FF no mesmo dia em que o acordo foi fechado com a associação quilombola de Bombas. A demissão do diretor e do gerente da FF fazia parte de uma reestruturação institucional mais ampla da FF, feita através do decreto 57.933/12. O que isso significava na prática era que o acordo não era mais válido, na medida em que o diretor e o gerente da FF não tiveram a oportunidade de leva-lo para avaliação jurídica. A associação quilombola de Bombas enviou carta ao Governador de São Paulo, à Secretaria de Justiça e Defesa da Cidadania e à Secretaria de Meio Ambiente reclamando da falta de reconhecimento do processo. Essa estratégia levou a outra reunião entre os atores envolvidos, em fevereiro de 2013, ocasião em que a primeira proposta da FF, de 2.402 hectares, foi reapresentada. Argumentos como a proteção do Córrego Grande como um bem púbico, e a

incompetência local para administrar a área, foram usados para suportar a sua exclusão do território de Bombas (Sundberg 2008).

A associação quilombola estava diante de duas opções: ou aceitava a proposta territorial da FF, ou levava o caso para a justiça. Em junho de 2013, a associação quilombola decidiu aceitar a proposta territorial da FF, sob a condição de (1) que a comunidade fosse oficialmente reconhecida como quilombo pelo ITESP e obtivesse a titulação do território negociado, (2) que os limites do PETAR fossem excluídos do território de Bombas, e (3) que uma estrada de acesso fosse construída pelo Departamento de Estradas de Rodagem (DER). Nem o ISA nem a EEACONE prestaram assistência no sentido de comprometer as autoridades competentes antes da proposta da FF ser aprovada. Após a demarcação do novo território de Bombas, de 2.402 hectares, excluído o Córrego Grande, o processo de reconhecimento parou no jurídico da SEMA, aguardando aprovação. Devido ao impasse, a Defensoria Pública do Estado em Registro ajuizou uma ação em março de 2014, em nome da associação quilombola de Bombas, pressionando o estado a cumprir imediatamente com as demandas dos quilombolas. Mais tarde, em agosto, uma reunião foi feita entre as partes interessadas, em que a associação quilombola de Bombas reiterou sua concordância na exclusão do Córrego Grande, caso o estado assinasse e publicasse um documento afirmando sua obrigação de cumprir as demandas da comunidade. Os órgãos do estado se comprometeram unicamente a reconhecer a comunidade como um quilombo, e os moradores de Bombas aceitaram, com receio de uma postergação ainda maior do estado. No entanto, anunciaram que continuariam a lutar pela exclusão dos limites do Parque e pela construção de uma estrada de acesso e outras infraestruturas, conforme delimitado na ação judicial. Em novembro de 2014, no Dia da Consciência Negra, Bombas foi oficialmente reconhecida como uma comunidade quilombola pelo ITESP.

Justiça em uma Relação Desigual?

Séculos de colônia e duas décadas de ditadura espoliaram os negros de seus direitos territoriais e sua cidadania, e seu status inferior tem sido usado para justificar e perpetuar relações sociais

desiguais (Rapoport 2008). Como uma arma contra a exclusão social e a marginalização, muitos negros reapropriaram valores e práticas, construindo uma identidade quilombola que antes não existia (Penna-Firme e Brondizio 2007). O fundamento legal da Constituição de 1988 assegurando direitos territoriais aos quilombos, a lei do SNUC que garantiu a participação da sociedade civil na construção e prática da política ambiental, e a Resolução SEMA 29/2010, criada para resolver sobreposições entre quilombos e áreas protegidas, juntas abriram espaço para que a associação quilombola de Bombas pudesse negociar seus direitos territoriais com o estado. Em resposta aos obstáculos políticos e estruturais que se ergueram por força de uma opressão histórica, os moradores de Bombas passaram a demandar reconhecimento como quilombo e efetiva participação na negociação sobre os direitos a suas terras ancestrais (Schlosberg 2007). As reivindicações da comunidade por participação, reconhecimento e justiça distributiva foram expressadas de forma entrelaçada ao longo do processo de negociação. A construção de alianças com o ISA e a EEACONE fortaleceu as vozes dos moradores de Bombas e sua mobilização, permitindo-os articular seus descontentamentos e contestar seu suposto papel de habitantes clandestinos em seu próprio território.

Por receio de serem ignorados pelas autoridades estaduais, os moradores de Bombas solicitaram participação na formulação do Protocolo de Intenções, do Plano de Trabalho, no campo, e na elaboração do relatório de pesquisa, para poderem influenciar na produção de conhecimento e na tomada de decisão sobre os limites territoriais. Isso garantiu que a voz da associação quilombola de Bombas estivesse presente ao longo de todo o processo de negociação. Mesmo assim, as autoridades florestais tinham mais "poder de decidir a agenda" do que a associação quilombola e os mediadores (Lukes 2005). A influência superior das autoridades florestais nas reuniões de negociação e no processo de pesquisa possibilitou que as agendas e compromissos acordados fossem repetidamente descumpridos, tornando o processo de negociação excludente. A demora no processo de pesquisa, na entrega do relatório de pesquisa e na apresentação de uma proposta territorial levou à perda da oportunidade de continuar a negociação enquanto funcionários cooperantes ainda estavam empregados na FF. A demissão do gerente e do diretor da FF no mesmo dia em que o acordo sobre o território histórico de Bombas havia sido selado, bem como o congelamento do processo de reconhecimento após Bombas ter aceito a exclusão do Córrego Grande de seu território, ilustram bem a falta de compromisso das autoridades florestais. Autoridade, status e recursos são importantes quando se trata tanto de criar como violar as regras institucionais. O abuso das

autoridades florestais de sua posição mais poderosa produziu considerável incerteza junto aos moradores de Bombas, agravando assim sua falta de confiança no estado (Ostrom 2011).

A influência da associação quilombola na tomada de decisão sobre os limites do território também era inferior à influência das autoridades florestais que controlavam a política "nos bastidores" (Lukes 2005). O interesse das autoridades florestais na proteção do Córrego Grande de qualquer interferência humana foi mantida no debate e prevaleceu ao fim. O uso de argumentos em favor da proteção integral do Córrego Grande mostra a persistência do paradigma preservacionista, que busca preservar a vida selvagem e seus habitats através da exclusão de populações locais, e que ganhou força durante a ditadura militar no Brasil (Diegues 2011, Barreto Filho 2004). Tanto na implementação do PETAR como no processo de negociação, os moradores de Bombas eram vistos como uma ameaça à biodiversidade em geral, particularmente ao bagre cego, em razão supostamente de suas práticas inadequadas e da falta de capacitação e educação (Sundberg 2008). Foram portanto compelidos a pagar o preço da exclusão em prol do benefício global da conservação da diversidade. Embora os moradores de Bombas tenham expressado diferentes significados, histórias e utilidades sócio-economicas do Córrego Grande, seus conhecimentos e interesses foram sobrepostos pelo interesse das autoridades florestais mais poderosas. Isso é lamentável, na medida em que as práticas quilombolas de subsistência têm demonstrado cumprir um papel na formação da Mata Atlântica, potencialmente aumentando a biodiversidade e a complexidade ecológica estrutural (Adams et al. 2013, Thorkildsen 2014). A proposta de transformar o Córrego Grande em RPPN, para mantê-lo dentro dos limites do território de Bombas, deveria ter sido melhor trabalhada pela associação de Bombas com apoio do ISA e EEACONE.

Embora o marco legal no Brasil tenha aberto novos espaços políticos, o presente artigo demonstrou que padrões antigos de exclusão, de séculos atrás, ainda persistem no aparato estatal brasileiro. Entre os fontes da exclusão social está a atitude arrogante do Estado perante os quilombos (que advém da sua posição social e economicamente marginalizada no Brasil), o uso de decisões informais para impedir o processo de reconhecimento quilombola, o uso de práticas excludentes na pesquisa e no processo de negociação, através da falta de compromisso e de manipulação política "nos bastidores", e o uso persistente de discursos excludentes como

"destruidores de florestas" para suportar um modelo preservacionista. A discriminação enraizada e o uso pelas autoridades florestais de práticas e discursos excludentes contribuíram para privar os quilombolas de participar na tomada de decisão, impedindo severamente a possibilidade de realização de seus direitos. Devido às disparidades socioeconômicas e de poder político entre os atores envolvidos no processo de negociação, não surpreende que as relações de dominação das autoridades florestais sobre os moradores de Bombas tenham se mantido (Ostrom 2011). As reuniões de negociação foram um espaço para desafiar os desequilíbrios de poder, mas não produziram uma mudança real no poder, na medida em que a arena de negociação não abriu espaço para uma participação efetiva, onde a voz dos quilombolas pudesse influenciar de forma relevante a agenda e as decisões importantes.

Após doze anos de luta, Bombas foi oficialmente reconhecida como quilombo, mas apenas após terem aberto mão do Córrego Grande e ajuizado uma ação contra o estado. Para que justiça seja feita nessa relação desigual entre o quilombo e o estado, é preciso que se cumpram imediatamente as demandas da associação quilombola pela titulação regular da terra, pela exclusão dos limites sobrepostos do PETAR e pelo acesso ao desenvolvimento de infraestrutura. Para os moradores de Bombas, o título de suas terras significa tanto o reconhecimento de sua existência e de seus direitos perante a sociedade brasileira, como também a garantia de sobrevivência da comunidade (Rapoport 2008). Apenas após a realização dos direitos territoriais quilombolas e o reconhecimento de seu papel como guardiães legítimos da biodiversidade será possível construir laços de confiança com autoridades florestais. Isso é essencial para o estabelecimento de uma parceria entre o quilombo e o estado para a governança territorial de Bombas, e para alcançar uma conservação mais inclusiva da Mata Atlântica no Brasil.

Agradecimentos

Gostaria de expressar meu agradecimento pelas informações e pontos de vista compartidos por moradores da comunidade de Bombas, outros quilombolas no Vale do Ribeira, servidores públicos, políticos, pesquisadores e representantes de organizações da sociedade civil que participaram desta pesquisa. Gostaria de agradecer particularmente pelo apoio recebido pelo Instituto Socioambiental (ISA), particularmente do então coordenador do Programa Vale do Ribeira e meu orientador local Nilto Tatto, bem como da antropóloga Anna Maria Andrade. Ademais, gostaria de estender meus agradecimentos aos meus orientadores Randi Kaarhus e Ian Bryceson pela orientação e retorno construtivo na pesquisa. Obrigado também pelos comentários feitos em versões anteriores por Randi Kaarhus, Tor Arve Benjaminsen e Espen

Olav Sjaastad e três revisores anônimos. Por fim, agradeço Josie Teurlings pela ajuda com o mapa.

Financiamento

A pesquisa foi financiada por uma bolsa de doutorado concedida pela Universidade de Meio Ambiente e Biociências da Noruega.

Bibliografia

Adams, C., L. C. Munari, N. Vliet, R. S. S. Murrieta, B. A. Piperata, C. Futemma, N. N. Pedroso Jr., C. S. Taqueda, M. A. Crevelaro, e V. L. Sressola-Prado. 2013. Diversifying Incomes and Losing Landscape Complexity in Quilombola Shifting Cultivation Communities of the Atlantic Rainforest (Brazil). *Human Ecology* 41 (1):119-137. doi: 10.1007/s10745-012-9529-9.

Andrade, A. M., e N. Tatto. 2013. *Inventário cultural de quilombos do Vale do Ribeira*. São Paulo: Instituto Socioambiental.

Arruti, J. M. 2006. *Mocambo: Antropologia e história do processo de formação quilombola [Mocambo: Anthropology and history of the process of quilombola formation]*. Bauru, SP: Edusc.

Barreto Filho, H. T. 2004. Notas para uma história social das áreas de proteção integral no Brasil. In *Terras indígenas e unidades de conservação da natureza*, eds. F. Ricardo and V. Macedo, pp. 53-63. São Paulo: Instituto Socioambiental.

Beymer-Farris, B. A., e T. J. Bassett. 2012. The REDD menace: Resurgent protectionism in Tanzania's mangrove forests. *Global Environmental Change* 22 (2):332-341.

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

Culver, D. C., e T. Pipan. 2009. *The biology of caves and other subterranean habitats*. Oxford: Oxford university press.

Cunha, M. C. 1987. *Antropologia do Brasil: Mito, história, etnicidade*. São Paulo: Brasiliense.

Dagnino, E. . 2005. 'We all have rights, but...' Contesting concepts of citizenship in Brazil. In *Inclusive Citizenship: Meanings and Expressions*, eds. N. Kabeer, pp. 149-163. London: Zed Books.

Diegues, A. C. 1998. *The myth of untamed nature in the Brazilian rainforest*. São Paulo: NUPAUB - Research Center on Human Population and Wetlands.

Diegues, A. C. 2011. *Povos e comunidades tradicionais em áreas de proteção integral no Brasil: Conflitos e direitos.* São Paulo: NUPAUB-Research Center on Human Population and Wetlands

Esterci, Neide, e Annelise Fernandez. 2009. O legado conservacionista em questão. *Revista Pós Ciências Sociais* 6 (12):15-40.

Ferreira, L. C. 2004. Dimensões humanas da biodiversidade: Mudanças sociais e conflitos em torno de áreas protegidas no Vale do Ribeira, SP, Brasil. *Ambiente & Sociedade* 7:47-66.

Forsyth, Tim, e Andrew Walker. 2008. *Forest guardians, forest destroyers: the politics of environmental knowledge in northern Thailand*. Seattle: University of Washington Press.

Fraser, N. 1998. Social justice in the age of identity politics: Redistribution, recognition, and participation. *The Tanner Lectures on Human Values* 19:2-67.

Harvey, D. 1996. *Justice, nature and the geography of difference*. Cambridge, Mass.: Blackwell.

Hooker, J. 2005. Indigenous inclusion/black exclusion: Race, ethnicity and mulitcultural citizenship in Latin America. *Journal of Latin American Studies* 37:1-26.

Karmann, I., and J. A. Ferrari. 2002. Carste e Cavernas do Parque Estadual Turístico do Alto Ribeira (PETAR), SP: Sistemas de cavernas com paisagens subterrâneas únicas. In *Sítios geológicos e paleontológicos do Brasil*, eds. C. Schobbenhaus, D. A. Campos, E.

T. Queiroz e M. Berbert-Born, pp. 401-413. Brasília: DNPM/CPRM - Comissão Brasileira de Sítios Geológicos e Paleobiológicos (SIGEP)

Krone, R. 1950. As grutas calcárias do vale do rio Ribeira de Iguape. *O I.G.G.* 8 (3):248-297.

Kurtz, H. E. 2003. Scale frames and counter-scale frames: constructing the problem of environmental injustice. *Political Geography* 22:887-916.

Lukes, Steven. 2005. *Power: A radical view*. Basingstoke: Palgrave Macmillan.

Marinho, M. A., e S. A. Furlan. 2007. Conflitos e possíveis diálogos entre parques e populações: Intervales e Guapiruvu, SP. *Floresta e Ambiente* 14 (2):22-34.

Medeiros, R. 2006. Evolução das tipologias e categorias de áreas protegidas no Brasil. *Ambiente & Sociedade* 9 (1):41-64.

Myers, N., Russell A. Mittermeier, C. G. Mittermeier, G. A. B. Fonesca, e J. Kent. 2000. Biodiveristy hotspots for conservation priorities. *Nature* 403:853-858.

Oliveira Jr, A. N., D. Stucchi, M. F. Chagas, e S. S. Brasileiro. 2000. Comunidades negras de Ivaporunduva, São Pedro, Pedro Cubas, Sapatu, Nhunguara, André Lopes, Maria Rosa e Pilões. In *Negros do Ribiera: Reconhecimento étnico e conquista do território*, eds. T. Andrade, C. A. C. Pereira and M. R. Oliveira Andrade, pp. 39-192. São Paulo: ITESP.

Ostrom, E. 2011. Background on the institutional analysis and development framework. *Policy Studies Journal* 39 (1):7-26.

Penna-Firme, R., e E. Brondizio. 2007. The risks of commodifying poverty: Rural communities, *quilombola* identity and nature conservation in Brazil. *HABITUS* 5 (2):355-373.

Rapoport. 2008. Between the law and their land: Afro-Brazilian Quilombo communities' struggles for land rights. University of Texas of Austin: Rapoport Center for Human Rights and Justice.

Ribeiro, Milton Cezar, Jean Paul Metzger, Alexandre Camargo Martensen, Flávio Jorge Ponzoni, e Márcia Makiko Hirota. 2009. The Brazilian Atlantic Forest: How much is left, and how is the remaining forest distributed? Implications for conservation.

Biological Conservation 142 (6):1141-1153. doi: http://dx.doi.org/10.1016/j.biocon.2009.02.021.

Santilli, J. 2010. Human-inhabited protected areas (HIPAs) and the law: integration of local communities and protected area in Brazilian law. *Journal of Sustainable Forestry* 29 (2-4):390-402.

Santos, K. M. P. , e N. Tatto. 2008. *Agenda socioambiental de comunidades Quilombolas do Vale do Ribeira*. São Paulo: Instituto Socioambiental.

Schlosberg, D. 2007. *Defining environmental justice: Theories, movements, and nature*. Oxford: Oxford University Press.

Schroeder, R., K. S. Martin, B. Wilson, e D. Sen. 2008. Third World environmental justice. *Society & Natural Resources* 21 (7):547-555. doi: 10.1080/08941920802100721.

Scott, J. C. 1985. *Weapons of the weak: Everyday forms of peasant resistance*. New Haven: Yale University Press.

Silveira, P. C. B. 2003. Relatório técnico científico sobre os remanescentes da comunidade de quilombo de Bombas, Iporanga-São Paulo. São Paulo: ITESP (não publicado).

Silveira, P. C. B. 2007. *Conflitos socio-ambientais e mobilização de identidade: Um estudo na Mata Atlântica*. Artigo apresentado no 31º Encontro da ANPOCS, 22-26 de Outubro, 2007, Caxambu, MG, Brasil.

Sundberg, J. 2008. Placing Race in Environmental Justice Research in Latin America. *Society & Natural Resources* 21 (7):569-582. doi: 10.1080/08941920802111538.

Thorkildsen, K. 2014. Social-Ecological Changes in a Quilombola Community in the Atlantic Forest of Southeastern Brazil. *Human Ecology* 42 (6):913-927. doi: 10.1007/s10745-014-9691-3.

Urkidi, L., e M. Walter. 2011. Dimensions of environmental justice in anti-gold mining movements in Latin America. *Geoforum* 42 (6):683-695. doi: http://dx.doi.org/10.1016/j.geoforum.2011.06.003.

Walker, G. 2009. Globalizing environmental justice. The geography and politics of frame contextualization and evolution. *Global Social Policy* 9 (3):355-382. doi: 10.1177=1468018109343640.

West, P., J. Igoe, e D. Brockington. 2006. Parks and peoples: The social impact of protected areas. In *Annual Review of Anthropology*, 251-277.

Young, I. M. 1990. *Justice and the politics of difference*. Princeton, N.J.: Princeton University Press.

Zerner, C. 2000. *People, plants, and justice: the politics of nature conservation*. New York: Columbia University Press.

Annex 3: Interview Guide for Bombas and PETAR

- ✓ How was life in the community before the implementation of the State Touristic Park of the Upper Ribeira (PETAR) in 1987?
  - What agricultural practices were community members engaged in?
  - How and when did they carry out these practices?
  - What factors were taken into consideration for opening of new areas for agricultural cultivation?
  - What was the size of the agricultural plots?
  - How many agricultural plots did each family have?
  - How long did they leave the plots fallow?
  - What type of forest products used to be extracted and from where? For what purposes?
  - What type of domestic animals did they used to have and how many?
  - What kind of access rules operated in the community? What about ownership?
  - How many people used to live in the community?
- ✓ Was the community consulted before the implementation of PETAR? Was there any arena for dialogue or exchange of opinions?
- ✓ What restrictions were the community members faced with after the implementation of PETAR?
- ✓ How has life changed after the implementation of PETAR?
  - In the house?
  - In the agricultural field, e.g. size and number of agricultural plots, type of crops planted, time left fallow, number and type of domestic animals?
  - Time of planting, time spent in the field? Mutual help organisations? Celebrations?
  - Hunting/ fishing/extraction of forest products?
  - Species: Are there any plants or animals that are no longer present? Are there any new plants or animals that have appeared?
- ✓ What have been the impacts of government incentives such as *Cesta Básica* and retirement allowances in Bombas? What do community members think about what they produce and consume?
- ✓ When did community members first hear about 'quilombola'?
- ✓ What kind of discussions did the ethnic identity of 'quilombola' trigger?
- ✓ How did the organisation into a quilombola association initiate?
- ✓ How has the quilombola recognition process evolved over time?
- ✓ What aspects did Bombas inhabitants take into consideration for drawing the boundary of their territory?
- ✓ What are the arguments used in favour of different maps of the territory by ITESP, ISA and FF?
- ✓ How have the negotiation process over territorial rights between Bombas and forest authorities played out?
- ✓ What have been the role of the mediator and the legal advisor?

- ✓ What perceptions do different actors have regarding conservation of the Brazilian Atlantic Forest?
- ✓ Aspects of cohesive and splitting processes and tendencies: what brings people together and what triggers conflicts and mistrust?
- ✓ What are the thoughts about the way forward and the future?

Annex 4: Interview Guide for Dam Proposals and the Anti-Dam Movement MOAB

- ✓ What is quilombolas' relationship with the Ribeira de Iguape River?
- ✓ What historical, cultural, and environmental values do this river have?
- ✓ When did quilombolas get to know about the dam proposals and how?
- ✓ Have local people been consulted about the dam projects?
- ✓ What are the different opinions about the dam proposal, and what arguments are used?
- ✓ What do people think will happen if the dams are constructed?
- ✓ Did anyone offer to buy land along the margins of the river?
- ✓ How did the anti-dam movement MOAB form? Who organises?
- ✓ What is the role of the Catholic Church?
- ✓ Who participates in the movement and how did MOAB manage to mobilise local people and build alliances with actors in other geographical locations?
- ✓ How did claims for quilombola recognition arise? How did communities organise into quilombola associations?
- ✓ What other strategies have been used?
- ✓ What actions have taken place?
- ✓ What have been the aims of the different actions?
- ✓ How were the public hearings carried out? What purposes did the public hearings serve?
- ✓ What is the function of the Bill of Law 394/2007 that declares the Ribeira de Iguape River a historical, cultural and environmental heritage of the State of São Paulo?
- ✓ What is the relationship between the regional MOAB and the national Movement of Dam-Affected People (MAB)?
- ✓ What is MOAB's relationship with the Brazilian Institute for the Environment and Renewable Resources (IBAMA), the Brazilian Aluminium Company (CBA) and CESP?
- ✓ What do different actors think will happen to the planned dams? Will they be built? Why or why not?
- ✓ How do different actors see the Ribeira Valley in the future?
- ✓ What are alternatives to the development model promoted by private actors and the government?