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Belo Monte, São Luiz do Tapajós and Storylines of Resistance

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**(Re)Defining Sustainability: Belo Monte, São Luiz do Tapajós and
Storylines of Resistance**

Ed Atkins

A dissertation submitted to the University of Bristol in accordance with the requirements for award of the degree of PhD in Environment, Energy and Resilience in the Faculty of Social Sciences and Law.

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Abstract

This thesis examines the processes of interplay between pro-dam and resistance coalitions within the planning and construction of the Belo Monte and São Luiz do Tapajós projects in contemporary Brazil. In particular, I focus on the role of discourse - what I term 'storylines' - within this contest. Drawing on Gramscian notions of hegemony and the post-structuralist discourse theory of Ernesto Laclau, Chantal Mouffe, and the wider Essex School, this work focuses on how resistance actors have advanced new storylines that both challenge and reconfigure the dominant pro-dam storylines that present the hydropower schemes studied as renewable energy projects that contribute to sustainable development agendas. This is with particular reference to the processes of repoliticisation and 'scaling up', which, taken together, render visible the political interests behind a project and link the resistance movement to wider questions of contemporary environmental politics. The empirical data underpinning the analysis has been generated during a period of fieldwork in Brazil in late-2016 and includes semi-structured interviews, questionnaires and document analysis.

By examining the numerous storylines advanced by resistance actors to discredit the Belo Monte and São Luiz do Tapajós projects, this thesis illuminates the processes of interplay and reconfiguration that repoliticise hydropower projects and scale up local demands and grievances into global storylines of opposition. It highlights the contested meaning of sustainability, with the concept rearticulated by resistance actors as equivalent to numerous social and environmental demands and grievances that are undiscussed in pro-dam storylines. This thesis thereby opens up new lines of enquiry into how hegemonic storylines of sustainable hydropower remain contestable and argues for the importance of studying these resistance acts of contestation and reconfiguration in opposing global policies of dam-construction.

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Despite those acknowledged above, all mistakes contained within the following pages are mine and mine alone.

Author's Declaration

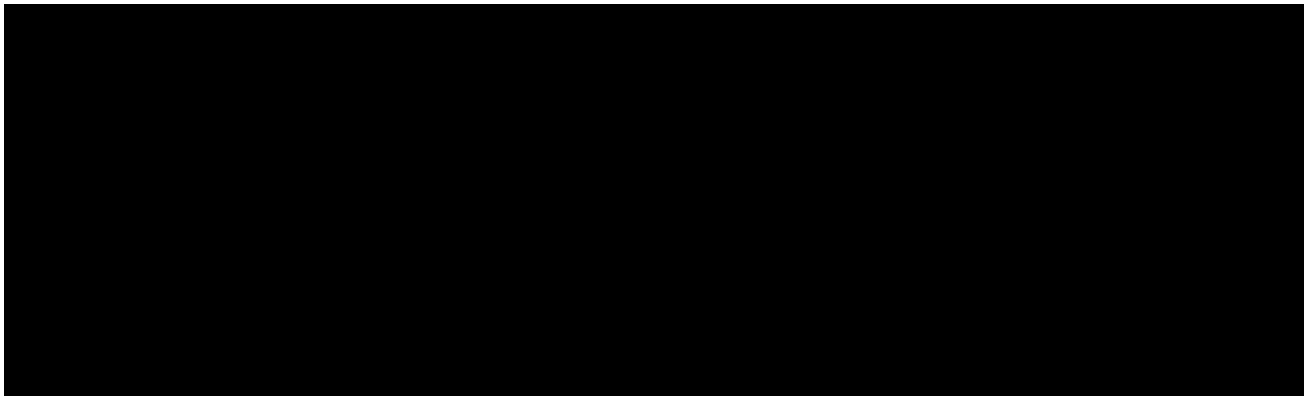
I declare that the work in this dissertation was carried out in accordance with the requirements of the University's Regulations and Code of Practice for Research Degree Programmes and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

I declare that research conducted during the duration of this project has resulted in additional research outputs. These publications are my own work and solely authored by myself. These texts are referenced within the submitted dissertation and are as follows:

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Atkins, E. (2018b). [Forthcoming]. Building a dam, constructing a nation: The 'drowning' of Capel Celyn. *Journal of Historical Sociology*. Available at: <https://doi.org/10.1111/johs.12186>



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List of Abbreviations

ABIN	Agência Brasileira de Inteligência
AIDA	Inter-American Association for Environmental Defense
ANEEL	Agência Nacional de Energia Elétrica
ATL	Acampamento Terra Livre
BNDES	Banco Nacional de Desenvolvimento Econômico e Social
CCBM	Consórcio Construtor Belo Monte
CDM	Clean Development Mechanism
CHESF	Companhia Hidrelétrica do São Francisco
CIMI	Conselho Indigenista Missionário
COIAB	Coordenação das Organizações Indígenas da Amazônia Brasileira
EDF	Électricité de France S.A.
EIA	Environmental Impact Assessment
Eletronorte	Centrais Elétricas do Norte do Brasil S.A.
Eletrobras	Centrais Elétricas Brasileiras S.A.
EO	Environmental organisation
EPE	Empresa de Pesquisa Energética
FORT Xingu	O Fórum Regional de Desenvolvimento Econômico e Socioambiental da Transamazônica e Xingu
FPIC	Free, prior and informed consent
FUNAI	Fundação Nacional do Índio
FVPP	Fundação Viver, Produzir e Preservar
GHG	Greenhouse gas
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis
ICOLD	International Commission on Large Dams
INPA	Instituto Nacional de Pesquisas da Amazônia
ISA	Instituto Socioambiental
MAB	Movimento dos Atingidos por Barragens
MDTX	Movimento pelo Desenvolvimento da Transamazônica e Xingu
MMA	Ministério do Meio Ambiente
MME	Ministério de Minas e Energia
MPF	Ministério Público Federal
MTV	Movimento Tapajós Vivo
MXVS	Movimento Xingu Vivo para Sempre
NGO	Nongovernmental organisation

PAC	Programa de Aceleração do Crescimento
Petrobras	Petróleo Brasileiro S.A.
PFL	Partido da Frente Liberal
PMDB	Partido do Movimento Democrático Brasileiro
PP	Partido Progressista
PT	Partido dos Trabalhadores
PV	Partido Verde
UFPA	Universidade Federal do Pará
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
UNICAMP	Universidade Estadual de Campinas
WCD	World Commission on Dams
WCED	World Commission on Environment and Development
WWF	World Wildlife Fund

List of Organisations

Agência Brasileira de Inteligência	Brazilian Intelligence Agency
Agência Nacional de Energia Elétrica	Brazilian Electricity Regulatory Agency
Banco Nacional de Desenvolvimento Econômico e Social	National Bank for Economic and Social Development
Consórcio Construtor Belo Monte	Belo Monte Construction Consortium
Empresa de Pesquisa Energética	Energy Research Company
Conselho Indigenista Missionário	Missionary Indigenous Council
Coordenação das Organizações Indígenas da Amazônia Brasileira	Coordination of the Indigenous Organizations of the Brazilian Amazon
Fundação Nacional do Índio	National Indian Foundation
Fundação Viver, Produzir e Preservar	Live, Produce and Preserve Foundation
Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis	Brazilian Institute of the Environment and Renewable Natural Resources
Instituto Socioambiental	Socio-Environmental Institute
Movimento dos Atingidos por Barragens	Movement of People Affected by Dams
Movimento pelo Desenvolvimento da Transamazônica e Xingu	Movement for the Development of Transamazon and Xingu
Ministério do Meio Ambiente	Ministry of the Environment
Ministério de Minas e Energia	Ministry of Mines and Energy
Ministério Público Federal	Federal Public Ministry
Movimento Tapajós Vivo	Tapajós Alive Movement
Movimento Xingu Vivo para Sempre	Xingu Alive Forever Movement
O Fórum Regional de Desenvolvimento Econômico e Socioambiental da Transamazônica e Xingu	The Regional Forum for Economic and Socio-Environmental Development of the Transamazônica and Xingu
Partido do Movimento Democrático Brasileiro	Brazilian Democratic Movement Party
Partido Progressista	Progressive Party
Partido dos Trabalhadores	Workers' Party
Partido Verde	Green Party

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Chapter 1

Introduction

For over a century, geographers, historians and political scientists have explored the intersection of water, politics and power relations to understand how these three phenomena have become linked within processes of water resource management and the construction of infrastructure (Semple, 1911; Wittfogel, 1957; Worster, 1985; Reisner, 1993; Radkau, 2008; Molle et al., 2009; Swyngedouw, 2015). The political capability to both act upon and influence others has been gained from irrigation works throughout history from the time of the Sumerians in Southern Mesopotamia over 5,000 years ago (Wittfogel, 1957; Radkau, 2008). The Roman Empire consisted of more than just aqueducts, bridges and roads to Rome – with dams constructed in North Africa and modern-day Spain to ensure a continued supply of water to the baths, latrines and fountains of urban centres. The Roman-built Cornalvo dam, located in the Badajoz province of western Spain, is still in use – its earth and stone cladding understood to originate from the first or second century AD.

In the 20th century, the development of water infrastructure became unprecedented in both scale and scope. From the canalisation of the isthmus of Panama (completed in 1914), to the iconic concrete structures of the Hoover (1936), Grand Coulee (1942) and Glen Canyon (1966) dams of the American West and the ‘Great Man-Made River’ of 2,820 kilometres of underground pipes in Libya (1989), society has turned to infrastructure to redirect water to meet the demands of agriculture and urban areas or to generate hydroelectricity by manipulating a river’s flow. A commitment to dam construction continued into the late 20th century: with the Itaipu (1984, joint between Brazil and Paraguay), the Sayano–Shushenskaya (1985, modern-day Russia) and the Atatürk (1992, Turkey) dams all representing the “Promethean impulse” that has characterised water engineering as a route of societal progress (Gandy, 2014: 10).

Although dam projects have been widely critiqued (Cernea, 1997; World Commission on Dams, 2000; McCully, 2001), the construction of this infrastructure has continued into the 21st century. The Inga-3 project in the Democratic Republic of Congo, the Three Gorges project in China and the Grand Ethiopian Renaissance Dam all provide examples of the continued role of hydroelectric dams in the energy plans of contemporary states. This represents the continuation of the *hydraulic mission*, a worldview that characterises the building of water infrastructure as a route to economic development and modernisation (Molle et al., 2009). The primacy of this policy of dam construction has left over half of the 292 large river systems of the world fractured by the

infrastructure - with over 45,000 large dams¹ holding back two-thirds of global freshwater flows (Nilsson et al., 2005; Baghel & Nüsser, 2010).

In this thesis, I explore two contemporary hydroelectric projects, namely the Belo Monte and São Luiz do Tapajós dams in the Legal Amazon Region of Brazil.² Both projects are located on tributaries to the Amazon river (the Xingu and Tapajós rivers respectively), both represent large capacities of energy generation (11,233 and 8,040 megawatts [MW] respectively) and both have been subject to periods of contestation by multi-actor resistance coalitions. However, whilst Belo Monte has entered into operations, the São Luiz do Tapajós project was ‘archived’ (a term used to describe a project’s removal from national energy plans) in August 2016, following the demarcation of the Sawré Muybu indigenous territory of the Munduruku community. With the contestation against both projects occurring concurrently, I explore the opposition to these projects and analyse how opposition actors define the projects and their resistance against them.

Both the Belo Monte and São Luiz do Tapajós dams represent constituent parts of the political programme of the *Partido dos Trabalhadores*-led (Workers’ Party, PT) government that held power in Brazil from 2003 to 2016. Within this period, Presidents Lula Inacio da Silva (2003-2011) and Dilma Rousseff (2011-2016) enacted a series of policy packages centred on stimulating economic growth through the construction of infrastructure, progressive social policies and the championing of domestic companies within international markets (Hochstetler & Montero, 2013; Montero, 2014; Casanova & Kassum, 2014). A centrepiece of these policies was the 2007 *Programa de Aceleração do Crescimento* (Growth Acceleration Programme, PAC) and, its successor plan, the 2010 *Programa de Aceleração do Crescimento* (PAC-2). The Belo Monte project secured investment in the 2007 PAC, whilst the São Luiz do Tapajós project was present in the 2010 PAC-2. At the time of their planning, these projects were constituent parts of an extensive programme of dam-building in the Legal Amazon Region that has taken place in Brazil over a number of decades. As of 2016, the Belo Monte and São Luiz do Tapajós projects were two of 79 dam projects planned for the lower and middle parts of the Amazon basin (Lees et al., 2016).

The construction of a dam is not an easy process - not only does earth have to be moved and concrete poured but a project must also be endowed with a degree of legitimacy, both within the local community and beyond. Due to this need for legitimacy, the planning and construction of a

¹ In using this term, I follow the definition provided by the International Commission on Large Dams (ICOLD), which understands a large dam as representing a dam with a height, from its lowest foundation to its highest point, of 15 metres or more and impounding over 3 million cubic metres of water.

² Defined as the nine federal states that overlap with the Amazon river basin (Acre, Amapá, Amazonas, Pará, Rondônia, Roraima and Tocantins and parts of Mato Grosso and Maranhão).

dam project is often characterised by the contentious interaction between a project's proponents and opponents (Lee, 2013). In this thesis, I explore this contestation by analysing the interplay between the pro-dam and resistance coalitions in Brazil, engaged in an open-ended process of conflict over the construction of the Belo Monte and São Luiz do Tapajós projects. To do so, I follow scholarship that locates the study of discourse at the centre of its analysis of the interactions between politics, power and the management of water (Molle et al., 2009; Ahlers et al., 2014; Crow-Miller, 2015; Warner et al., 2017). Drawing on Hajer (1995), I term the respective discourses forwarded by pro- and anti-dam groups as 'storylines', representing a trope or narrative that simplifies the meaning to social or physical phenomena. The imposition and entrenchment of a storyline - that provides a means of understanding a project and its wider consequences - has a central role in the contentious interaction that surrounds the construction of a dam, presenting it as a solution to a prescribed problem or asserting a necessity of action. These storylines are provided by both pro-dam and resistance actors, with each grouping locating a respective dam project within a wider narrative of problems, solutions and impacts.

Scholarship has identified a number of storylines that have been adopted by pro-dam actors to endow a dam and its consequences with a legitimacy. Historical examples include: a storyline of society's 'conquering' of nature, infrastructure as providing a techno-fix for social problems (such as water scarcity), the relations between hydropower and statehood and the role of dams in bringing economic development to a region or state (Mehta, 2003; Baviskar, 1995; Alatout, 2008; Molle et al., 2009; Ahlers et al., 2014; Islar & Boda, 2014; Johnson et al., 2015; Urquijo et al., 2015; Swyngedouw, 2015). In advancing these storylines, pro-dam actors locate the respective dam project within a wider social, political or economic context – be it centred around economic growth, nationalism, or the consolidation of a certain political order. As a result, the dam project in question becomes inscribed with a wider political significance – endowing it with additional legitimacy.

Within this thesis, I focus on an emergent storyline of legitimacy, one which presents a hydropower project within a language of sustainability (Ahlers et al., 2015; Bratman, 2015; Huber & Joshi, 2015; Joshi, 2015; Warner et al., 2017; Atkins, 2017; 2018). I define this as demonstrative of a *storyline of sustainability*, defined as the assertion of the perceived sustainability of the scheme and its location within contemporary sustainable development agendas. Whilst the promise of economic development has provided a legitimising storyline for historic dam projects, climate change mitigation now provides a key driver for the contemporary development of hydropower (Moore et al., 2010; Huber & Joshi, 2015; Warner et al., 2017). This is evident in international agreements, such as the United Nations' Beijing Declaration of Hydropower and Sustainable Development, the policies of multilateral organisations (World

Bank, 2009; World Energy Council, 2015) and the funding of hydroelectric projects via the Clean Development Mechanism of the 1997 Kyoto Protocol.

Within the cases studied, pro-dam actors have argued that contemporary hydropower projects in the Legal Amazon Region represent ‘clean’ energy that contributes to Brazilian sustainable development agendas. For example, at a 2010 rally in Altamira, President Lula Inacio da Silva (2003-2011) asserted the need to “Let us use clean energy and preserve the environment. This is my commitment” (S84). The Brazilian government sponsored a set of billboards in Rio de Janeiro, timed to coincide with the 2012 United Nations Conference on Sustainable Development, that portrayed the Belo Monte as ‘clean energy’ (Bratman, 2015). With a majority of the Brazilian population reporting a concern with environmental protection and health (Ministério do Meio Ambiente, 2012), these statements appeal to a ‘moral legitimacy’, in which the project is located within a value system that is, at the time, dominant (Bezerra et al., 2014).

Drawing on the work of Antonio Gramsci (1971) on ideological hegemony and *common* sense, I understand this emergent storyline of sustainability as a process of *trasformismo*, highlighting the ability of pro-dam actors to absorb and co-opt new, previously-disconnected demands as a device of legitimacy. The forwarding of a storyline of sustainability allows pro-dam actors to not only assert the apparent environmental credentials of a project but to also exclude alternative understandings of the social and environmental impacts of the projects studied. This act of exclusion constitutes the depoliticisation of the hydropower projects that the storyline of sustainability describes, raising them above *everyday* politics and dissent (Huber & Joshi, 2015). I understand this process as rendering a project or policy process as technical and apolitical, deflecting opposition criticism and separating legitimate from illegitimate actors, demands and grievances (Ferguson, 1994; Chhotray, 2007; 2008; Li, 2007; Pepermans & Maesele, 2015; Crow-Miller et al., 2016).

It is within this context that the task of an opposition movement against these projects comes to not only contest the dams but to resist the storyline of sustainability adopted to endow them with a legitimacy. Whilst research has described the emergence of this storyline of sustainability – both internationally (Huber & Joshi, 2015; Ahlers et al., 2015; Warner et al., 2017) and in Brazil (Bratman, 2015; Atkins, 2017; 2018) – the processes through which anti-dam actors challenge this storyline is less understood. This thesis analyses how resistance storylines reconfigure - simultaneously challenging and modifying – pro-dam storylines to advance alternative understandings of the project, its impacts and its wider resonance. In describing this contested sustainability, this thesis not only explores the disputes surrounding hydropower in the Brazilian Amazon but also provides conclusions related to the contested character of the dominant storyline of sustainability. Whilst scholarship has explored how anti-dam actors contest the planning and

construction of dams by forwarding storylines that illuminate the social and environmental impacts of respective projects (Carvalho, 2006; Chapman, 2007; Hensengerth, 2015; Kirchherr et al., 2017; Riethof, 2017; Aledo Tur et al., 2018), it is important to also explore how these resistance storylines challenge dominant pro-dam narratives.

With the concept of sustainability characterised by an ambiguity and open to contestation (Jacobs, 1999; Davidson, 2010; Leach et al., 2010; Scoones, 2010; Brown, 2015; Scheidel et al., 2017), the resistance struggles against these projects provide an example of how environmentalist movements forward emergent and alternative storylines of sustainability to challenge the location of hydropower schemes in contemporary sustainable development agendas (Harris, 2009). This process is not exclusively linked to contemporary dam-construction but can also be found in current contests surrounding renewable energy transitions (Dunlap, 2017; Frate & Brannstrom, 2017), reforestation programmes (Brock, 2015; Scheba & Rakotonarivo, 2016), and environmental change (Harris, 2009). It is necessary to interrogate the presence of a language of ‘sustainability’ in contemporary environmental policy and politics to explore how projects and processes of questionable environmentalist credentials can be both justified and contested using such terms. In light of Sustainable Development Goal 7 calling for ‘access to affordable, reliable, sustainable and modern energy for all’, this thesis explores how the ‘greener’ technologies included within this call continue to be contested, with their sustainability credentials subject to both disagreement and opposition. In doing so, the conclusions provided call for greater attention to the contested sustainability of contemporary *green* technologies, policies and projects.

To explore the contested nature of storylines of sustainability, I draw on the post-structuralist discourse theory of Ernesto Laclau, Chantal Mouffe and the wider Essex School. In this theoretical framework, an act of discourse represents an attempt to secure a hegemony of meaning and identity by positioning signs (representing concepts, demands, or grievances) in relation to others. It is the development of these relations (which may be of an equivalent or differential nature) that is evident in pro-dam storylines, with respective projects articulated as linked to concepts of economic development, nationalist progress, or sustainable development. Yet, Laclau and Mouffe (1985) argue that an act of discourse can only ever be partially dominant and are always open to counter-hegemonic discourse. As a result, a pro-dam storyline is not set in stone but can be challenged by the storylines forwarded by resistance actors.

Using the theoretical framework provided by discourse theory, I explore how the opposition to the Belo Monte and São Luiz do Tapajós projects forward a counter-hegemonic storyline that challenges the legitimising storylines of sustainability. It is this task that provides the first research question for this work:

What storylines have opposition actors forwarded to reconfigure the dominant storyline of sustainability surrounding the Belo Monte and São Luiz do Tapajós hydroelectric projects?

In exploring this question, this thesis explores the contested character of pro-dam storylines, analysing the different ways in which the resistance coalition challenge the asserted sustainability credentials of the Belo Monte and São Luiz do Tapajós projects. In doing so, it argues not only that hegemonic storylines of sustainable hydropower remain contestable but explores the different ways in which these dominant storylines are challenged and reconfigured. This is with a particular reference to the concepts of repoliticisation and ‘scaling up’ which, taken together, are forwarded to illuminate the political character of the projects – and the interests supporting their planning and construction – and locate them within wider storylines of contemporary environmental politics. In exploring this question, this thesis asserts the need to analyse these contests within contemporary scholarship and the need for this literature to not only focus on the formulation and hegemony of pro-dam storylines but also explore the avenues of resistance against them.

Exploring this question involved a period of fieldwork in Brazil (September 2016 to December 2016) and additional data collection between July 2016 and September 2017. The data takes the form of 21 semi-structured interviews, 12 structured questionnaires and over 300 news articles, press releases and reports disseminated by resistance actors positioned against the respective projects studied.³ Interviews were conducted with representatives of regional, national and international civil society organisations within the struggle against the Belo Monte and São Luiz do Tapajós projects.

The opposition to dam projects in Brazil exists at numerous levels - with local, regional, national and international groups all engaged in a process of activism and critique (McCormick, 2009; 2010). As a result, interviews and questionnaires have been conducted with local anti-dam activists, national-level campaign groups and international organisations. Further interviews have been conducted with representatives of the politico-bureaucratic actors involved in the environmental licensing process for these projects, with interviews conducted with high-level representatives of the *Ministério de Minas e Energia* (Ministry of Mines and Energy, MME), *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (Brazilian Institute of the Environment and Renewable Natural Resources, IBAMA), *Fundação Nacional do Índio* (National Indian Foundation, FUNAI) and *Ministério Público Federal* (Federal Public Ministry, MPF).

³ The collection of these primary sources came to an end in September 2017 and, as a result, some empirical developments have been excluded from the following chapters.

The focus of the interviews and questionnaires was on how respondents discuss and understand the Belo Monte and São Luiz do Tapajós projects, their benefits and impacts, as well as the respondents' opposition against the schemes. The data gathered was analysed for evidence of how respondents described the projects in question. This involved identifying the numerous acts of articulation (defined as the linking of certain grievances and demands to others) present in individual and collective storylines that locate the projects within wider storylines of environmental politics and beyond, such as those related to deforestation and biodiversity protection, the rights of indigenous and other traditional communities and the role of the projects studied in the *Lava Jato* corruption scandal that has engulfed Brazilian politics at the time of writing.

In engaging in these acts of articulation, resistance actors dispute the Belo Monte and São Luiz do Tapajós projects and the storylines of sustainability to legitimise their planning and construction. I conceptualise resistance storylines as both a translation of local demands into more universal storylines (defined as a process of 'scaling up') and a foregrounding of these demands within a storyline that exposes the interests behind the projects and provides an alternative vision of the dams and their definition as 'sustainable' (defined as 'repoliticisation'). In exploring this concept, I address the second research question for this work:

How does the reconfiguration of the storyline of sustainability represent a wider process of repoliticisation of the projects studied?

During the period of research, the São Luiz do Tapajós project was 'archived' and removed from both the environmental licensing process (a key prerequisite for construction) and national energy plans. As my fieldwork took place in the months immediately subsequent to this decision, this topic was frequently discussed with interviewees. In response to this, the final chapter of this thesis will explore respondents' understandings of the reasons behind this decision and the trajectories of the resistance storylines in the post-cancellation context. I also introduce a number of opposition materials, collected between July 2016 and July 2017, to understand the continuity and change of the resistance storylines discussed in the period since the project's cancellation. In doing so, I address the third research question:

Has the cancellation of the São Luiz do Tapajós project brought a continuity or a change in the opposition efforts to reconfigure the storyline of sustainability, in relation to hydropower projects in the Brazilian Amazon?

In adopting both the research questions outlined above and a framework of Discourse Theory, this research adopts an anti-essentialist epistemology, rejecting the presence of an ‘underlying essence’ that can be observed, measured or predicted. Unlike a positivist approach to social science research that focuses on explaining a reality ‘out there’, this project seeks to describe the multiple storylines that challenge each other in defining this reality (see Alvesson, 2002: 61 for a discussion of this approach in post-structuralist and post-modernist research.) Rather than distinguishing between ‘factual’ and ‘fictitious’ discourses, the focus of this work is, instead, centred on how the storylines related to hydropower in Brazil intersect and challenge one another.

The use of the framework provided by post-structuralist discourse theory allows for an emphasis on the multiplicity of discourses surrounding the projects studied, as well as their collision (Laclau & Mouffe, 1985). The research questions defined above are fitting to this approach - seeking to ask *What?* and *How?* rather than *Why?* Such questions are labelled by Marshall & Rossman, 1999: 33) as ‘Descriptive’ – or seeking to document and describe a phenomenon. This approach limits the explanatory potential of this project - with the following pages not testing hypotheses or making assertions about causal relationships occurring within the case studied. The focus of this work is not to identify the causes of the contestation of hydroelectric projects - that can be found in their social and environmental impacts. However, I am interested in describing how this contest is played out in the discursive realm - identifying key sites where competing groups define and redefine these impacts in relation to wider demands and grievances.⁴

In asking the questions above, I focus on describing the sites of the reconfiguration of the pro-dam storylines of sustainability, tracing the respective signifying chains and providing a conceptual vocabulary through which similar challenges can be understood in the future.⁵ By adopting such an approach, I follow the work of Baviskar (1995) in exploring how dominant perceptions or constructions of reality (what I have labelled ‘storylines’) are contested. Baviskar (1995) explored such a contest in relation to the building of the Sardar Sarovar dam in India, favouring the description of the way that the Adivasi communities impacted perceived the state actors planning and building the project, their own displacement and the transformation of the river.⁶ As I describe in Chapter Two, I am interested in exploring a similar process in Brazil - focusing my attention on the reconfiguration of a dominant storyline of sustainability. In doing

⁴ This is evident in my adoption of a single case study - that of contemporary dam-construction in Brazil - rather than casting a wider net to explore anti-dam movements elsewhere (see Kirchherr, 2018 for an example). In adopting a case study approach, I focus on the description of a particular anti-dam movement, rather than seeking to provide a form of causal explanation of wider tactics of resistance, which would be better suited by the latter, more-expansive approach that examines multiple movements across the globe (Gerring, 2004).

⁵ This focus on description stems from the work of Geertz (1975) on *thick description*. Geertz (1975) argued that a researcher's interpretation of phenomena should focus on locating recorded behaviour within a specific historical or sociopolitical context, as well as the application of theoretical concepts to describe it.

⁶ The opposition to this project gave rise to a resistance storyline of ‘alternatives to development’; in which the pro-dam assertions of the project as linked to economic development were challenged, discredited and reconfigured (Baviskar, 1995).

so, my motivation is not to explain why this reconfiguration takes place (or whether it is even necessarily successful) but is to describe how a dominant storyline is reconfigured and what new signs can be found in the emergent resistance storyline.

Overview of the Thesis

The structure of this thesis is as follows: In Chapter 2, I locate this work within a body of scholarship that conceptualises water infrastructure, such as dams, as representing the fusion of the management of water with power asymmetries and political variables. I explore this scholarship in relation to the occurrence ‘moments of consolidation’ (in which dams come to represent the stabilisation and/or reinforcement of existing social and political structures and relations) and ‘moments of contestation’ (in which the links between infrastructure and political relations are challenged) in processes of dam construction (Whitehead et al., 2007). I introduce the role of storylines within these processes, profiling examples of historic pro-dam storylines and the emergent pro-dam storyline that characterises hydropower projects as sustainable. Whilst contemporary scholarship has remained focused on pro-dam storyline of sustainability, I affirm the contestable nature of these storylines, the potential for their reconfiguration and the importance of studying resistance storylines against contemporary hydropower projects.

In Chapter 3, I outline the theoretical and methodological underpinnings of the subsequent analysis. I argue that a framework incorporating the work of Antonio Gramsci on ideological hegemony and *trasformismo* and the post-structuralist discourse theory of Ernesto Laclau and Chantal Mouffe provides a route for the analysis of the reconfiguration of pro-dam storylines by resistance actors within moments of contestation over dam construction. I profile a number of key concepts and terms used in subsequent analysis, namely the concepts of antagonism and the logics of equivalence and difference. I then move to introduce the pro-dam storyline of sustainability, describing its equivalential chain and outlining how the forwarding of this storyline by pro-dam actors functions to depoliticise and render technical the construction of the infrastructure. In doing so, I introduce the concepts of depoliticisation and repoliticisation. In the final section, I delineate the research design of this thesis, explaining how the theoretical framework outlined above underpins my methodological approach.

In Chapter 4, I provide the context of the Belo Monte and São Luiz do Tapajós projects. I explore the importance of hydropower in contemporary Brazilian politics, before introducing the respective histories of the dams studied and the actors involved in the pro-dam and resistance coalition present in the contests surrounding hydropower in Brazil. I then turn to profiling the storyline of sustainability adopted by pro-dam actors discussing the Belo Monte project, as well the routes for resistance against and reconfiguration of this pro-dam storyline.

Following these chapters, I turn to the empirical analysis of the materials collected. In Chapter 5, I discuss a *storyline of repoliticisation*, analysing how resistance actors foreground of the projects studied within the terrain of *everyday* politics. Within this storyline, the pro-dam storyline of sustainability is discredited by resistance actors highlighting the links between the Belo Monte and São Luiz do Tapajós projects and a wider political context of corruption, government impunity and the criminalisation of opposition actors. In doing so, resistance actors highlight the political character of the projects - previously denied in pro-dam assertions - and assert an alternative vision of the reasons behind their construction.

In Chapter 6, I discuss a *storyline of impacts*. In forwarding this storyline, resistance actors highlight the environmental and social impacts of the Belo Monte and São Luiz do Tapajós projects. Within this storyline, resistance actors draw attention to the links between the Belo Monte and São Luiz do Tapajós projects and local socio-economic impacts, processes of deforestation and the emission of greenhouse gases. These impacts are presented by resistance actors as understudied and neglected in the pro-dam storyline and the official environmental impact assessments (EIAs) for the respective projects. In doing so, resistance actors reconfigure the pro-dam storyline of sustainability by questioning its accuracy - as well as the validity of official assessments, whilst presenting their own understanding of the sustainability of the respective projects.

In Chapter 7, I discuss a *storyline of antagonism* that highlights the links between the Belo Monte and São Luiz do Tapajós projects and the respective project's impacts on indigenous communities. In forwarding this storyline, resistance actors foreground the struggle against the projects studied within a context of threats against the rights and identity of these indigenous communities. In doing so, resistance actors critique the pro-dam storyline of sustainability by describing the projects studied using a language of colonialism, human rights and cultural fragmentation.

In, the final empirical chapter, Chapter 8, I explore how respondents have reacted to the August 2016 'archival' of the São Luiz do Tapajós project, with the project removed from the national environmental licensing process due to an uncertainty of its impacts. I analyse the points of continuity and change between storylines in previous chapters and respondents' discussions of this decision. Whilst this decision has challenged and dislocated the pro-dam storyline of sustainability, resistance actors have reconfigured the storylines discussed in previous chapters to make sense of the 2016 decision. In doing so, resistance actors have linked the archival of the São Luiz do Tapajós project to a shifting political context, resulting in continued threats and a common belief that the project will return in the future. This constitutes an additional storyline that I label a *storyline of vigilance*, forwarded by resistance actors to assert that, although the São Luiz do

Tapajós dam may be removed from national energy plans, the struggle against dams in Brazil is far from over.

In Chapter 9, I summarise the arguments presented and return to the research questions outlined above to reflect on the significance of the storylines discussed. I outline how the theoretical framework and the resultant conclusions demonstrate how resistance actors, in opposition to a dam project, reconfigure its presentation as a sustainable project. In doing so, these movements highlight the contested character of sustainability, whilst demonstrating that the hegemony of pro-dam storylines is never fully assured.

Chapter 2

Redesigning hydrology: Moments of consolidation and contestation

Scholarly interest in the interactions between political variables and power asymmetries and the construction of water infrastructure - and, particularly, dams - has grown significantly over the past twenty-five years. Critical scholarship has explored the nexus between infrastructure, politics⁷ and the control of space, population and territory to highlight how infrastructure is imbued with political significance (Swyngedouw, 2004; 2009a; 2015; Whitehead et al., 2007; Molle et al., 2009; Tilt, 2015; Obertreis et al., 2016; Menga, 2017). Within this reading, dam projects become symbolic of wider political phenomena, reinforcing a political project or nationalist ideology - and its related power asymmetries. Yet, hydropower projects can also result in ‘moments of contestation’, in which two opposing groupings present divergent worldviews related to a project’s construction and resultant impacts (Whitehead et al., 2007).

In this chapter, I present an overview of the literature that explores moments of consolidation and contestation and the role of what I label the ‘storylines’ within them. I follow Hajer (1995: 65) to define a ‘storyline’ as a trope or narrative that provides meaning to social or physical phenomena. Scholarship has demonstrated the importance of storylines by highlighting their role in the justification of water infrastructure projects, such as dams (Molle et al., 2009; Warner et al., 2017). However, it is also evident that opposition groups adopt their own storylines of resistance that critique pro-dam assertions - allowing for a moment of contestation to occur (Rothman, 1993; Baviskar, 1995; Kirchherr et al., 2017). This process of interplay demonstrates how the dominance of pro-dam storylines is not set in stone but, instead remains open to critique and reconfiguration.

The chapter is organised as follows: I begin with an exploration of scholarship on the interaction between water resources, politics and power asymmetry. I then explore how this relationship is evident in the location of dams in ‘moments of consolidation’, in which the infrastructure becomes symbolic of a certain way of organising society, form of statehood or notion of economic development. I then highlight the role of storylines in these processes. However, with a dominant trend in contemporary scholarship retaining a focus on these pro-dam storylines, I then discuss the location of dams in ‘moments of contestation’, when opponents to a project resist the

⁷ Following Mouffe (1995), I define ‘politics’ as representing the practices, institutions and discourses that organise society.

storylines provided by the dam's supporters. I assert the importance of studying these contests, as well as discussing how local resistance movements are able to 'scale up' their resistance into wider storylines of environmental politics.

Power and the redesign of hydrology

This thesis is positioned within a field of scholarship that explores the intersection between hydraulic works (such as dams) and political power (Semple, 1911; Wittfogel, 1957; Worster, 1985; Swyngedouw, 2009; Molle et al., 2009; Isaacman & Isaacman, 2013). Following Menga (2017), I label this field of scholarship as 'Critical Hydropolitics', defined as exploring how, the management of water and construction of its associated infrastructure represents a political process, in which cultural, social, political and economic norms interact with the laws of hydrology (Worster, 1985; Molle et al., 2009; Linton, 2010, Perreault, 2014). Researchers have adopted a number of terms to describe this co-production – including 'hydro-social networks' (Bakker, 2003; Budds & Hinojosa, 2012; Linton & Budds, 2014; Loftus, 2009), 'technonatures' (Soper, 1995; White & Wilbert, 2009), 'waterscapes' (Swyngedouw, 1997; Ekers & Loftus, 2008) and 'hydropolis' (Menga, 2017). Although these terms vary in theoretical foundations, they are all advanced by scholars to highlight the social and political character of water and argue that the construction of infrastructure does not only impact the flows of water but also reproduces dominant social relations and contemporary power asymmetries (Swyngedouw, 1997, 2006b; Bakker, 2003; Loftus, 2009; Budds, 2009; Linton & Budds, 2014; Diaz-Caravantes & Wilder, 2014; Perreault, 2014; Zwarteveen & Boelens, 2014; Swyngedouw, 2015; Menga, 2017).

Following Marxist dialectical thinking, a number of scholars have argued that the natural world, rather than existing externally and distinct from social and political factors, should be understood as the co-produced⁸ outcome of both the ideological and material practices of society (Harvey, 1973; 1996; Peet, 1985; Smith, 1984; 1999; Castree, 1995; Swyngedouw, 1999b; Boelens et al., 2016).⁹ This scholarship asserts that the categories of nature and society do not exist without their positioning in relation to each other and the natural world is neither distinct and pre-existent nor

⁸ The term 'co-production' is adopted to describe how the materiality of water resources and social relations both express and constitute each other. Thinking of water resources in this way results in scholarship not only exploring how social and political processes influence the management of water but also the ways in which water resources shape social relations (Budds & Hinojosa, 2012). The term 'hydrosocial cycle' has been employed to explore these hybrid characteristics of water and society (Budds, 2009; Linton, 2010; Swyngedouw, 2009; Boelens, 2013). Linton and Budds (2014: 74) conceptualise this 'hydrosocial cycle' as including the resource's social and political nature, highlighting how water is not merely an "inert backdrop for social relations, but... plays a positive role in social formations."

⁹ In making such an argument, this literature moves away from a distinction between society and nature that conceptualises the natural world as existing externally to the social realm. This ontological division between the social and the natural is traced to Enlightenment thinking and, in particular, the work of René Descartes. Descartes argued that society emerges from the natural world and becomes distinct from this external realm - allowing for social relations to be analysed as separate from questions of ecology.

a mental construct. Instead, it is continually produced by prevailing political and economic relations (Smith, 1984; 1999). In applying this dialectical relationship to the management of water, scholars have highlighted the hybridity of water resources, with water constituted through its relationship with political phenomena (such as social power, popular demands and culture), rather than representing a preexisting, distinct entity (Swyngedouw, 1999a, 2004b, 2006b, 2009a; Castree, 2005; Linton & Budds, 2014). Water resources are bestowed with meaning via societal practices – be they historical memories, cultural custom or economic procedure - and, as a result, have both a material and symbolic existence (Perreault, 2014). For example, water resources have historically been linked to purity and cleanliness linked to social and cultural norms (Illich, 1986: 27-30). This purity is further evident in the contemporary bottled water industry, with this product shipped across the globe and consumed for its purity - itself a quality that is produced via socio-cultural representation (Jaffee & Newman, 2012). As a result, ‘modern water’ can no longer be studied through the rules of hydrology and engineering alone but must, instead, address questions of politics, sociology, ideology and power (Gandy, 2002; Linton, 2010; 2014; Tilt, 2015).

This scholarship often adopts a conceptualisation of power that focuses on the presence of inequity and domination, with political power asymmetries also present in the management of water (Wittfogel, 1957; Worster, 1985; Swyngedouw, 2009; 2015; Bichsel, 2012; Tilt, 2015). This conceptualisation of power as domination - defined by Dahl (1957: 201) as ‘power over’ - focuses on the questions of who controls the management of water and who is excluded from such policies. For example, Mohamud & Verhoeven (2016: 187) have highlighted the construction of a number of dams in Sudan, justified by the nation’s ‘Green Revolution’, involved the subjugation of populations via displacement, restriction of access and ecological marginalisation, whilst consolidating the political position of the ruling group. The Sudanese experience highlights how, as Worster (1985: 20) has argued, the “control over water has again and again provided an effective means of consolidating power relations - led, that is, to the assertion by some people of power over others.” The role of power relations in the construction of dam projects is also evident in the links between hydropower projects built in the 20th century and the geopolitics of the Cold War era, with the US Bureau of Reclamation providing technical assistance to other states on the construction of hydraulic works, as part of wider diplomatic efforts by the United States (Sneddon & Fox, 2011; Sneddon, 2012, 2015; Miescher, 2014; Akhter, 2015a). As a result, technical expertise and political interests merged in the construction of dam projects during this era, with the infrastructure perceived by pro-dam actors as providing a route to the consolidation of power relations in a bipolar geopolitical system (Sneddon, 2012; 2015).

In exploring the relationship between water and society, this literature has highlighted how it is the dynamics of social, political and economic power that ultimately decide who controls access to water resources (Kaika, 2006; Loftus, 2009; Linton & Budds, 2014). For example, the inequity of access to water in urban areas is both predicated upon and demonstrative of the dynamics of

social power in that area (Loftus, 2009; Dill and Crow, 2014; Joshi, 2015). Dill and Crow (2014) have found that inequality of access between rich and poor in Dar es Salaam, Tanzania and Nairobi, Kenya, represents a residue of colonial management. Similarly, racial differences of supply in Durban, South Africa have been defined as a consequence of the apartheid regime (Loftus, 2009). Within this reading, access to water is dictated by historical and economic power asymmetries. By conceptualising water this way, researchers explore how the management of water resources represents the power asymmetries, political and cultural ideologies of the social and political spheres (Duarte-Abadia & Boelens, 2016; Hulshof & Vos, 2016).

The relationship between political and social variables and the management of water resources can take a number of forms. To explore these routes, I draw on Whitehead et al (2007), who have argued that this interaction can take the form of one of three key ‘moments’. These are:

1. *Moments of consolidation*, referring to the construction of a ‘national nature’, in which the natural world is subject to a process of territorialisation - understood as related to the attempt by an individual or group to control people and phenomena via the assertion of control of a geographic space that results in patterns of inclusion and exclusion (Sack, 1986; Vandergeest & Peluso, 1995).
2. *Moments of contestation*, in which segments of society engage in resistance against a form of relations between the natural and political spheres, with opposition to environmental policies or infrastructural projects also representing the contestation of dominant ideologies and state formations.
3. *Moments of simulacrum*, in which a form of state-nature relations comes to represent its own reality, more powerful than the reality it initially sought to present.¹⁰

The scholarship explored in this chapter focuses on moments of consolidation and contestation, highlighting how dams are never related to flows of water exclusively but represent the most contentious issues of contemporary politics (Cunningham 2007). I will now turn to these discussions below.

Moments of consolidation

A dominant tendency in scholarship has been a focus on the links between dams and the consolidation of existing or emergent power structures, with the infrastructure located within a

¹⁰ This final ‘moment’ is unexplored in the literature reviewed and, as a result, will not be discussed in this thesis. Whitehead et al. (2007), drawing on the work of Baudrillard (1994), argue that this moment demonstrates the process in which representations of the past become understood as more viable and real than the past itself. The authors use the example of natural history museums, in which simulated representations of a distant past and extinct species are detached from the reality that they claim to represent (Whitehead et al., 2007).

politicised context of state-building, nationalism and decolonisation (Worster, 1985; Allouche, 2005; Whitehead et al., 2007; Molle et al., 2009; Bromber, 2014; Swyngedouw, 2015; Obertreis et al., 2016). From the early civilisations of Egypt, Somalia, China and pre-1492 Mexico (Wittfogel, 1957), the control and management of water has been central to the consolidation of state power and control of territory. Following this historic role, scholarship has demonstrated how the management of water in the 20th century provided an opportunity for a redefinition of statehood or a consolidation of existing power structures (Worster 1985; Reisner 1993; Swyngedouw 1999a; Dinmore, 2014). This literature argues that the control of water represents a frequently-used political strategy for the control of space, populations and resources. An example of this is scholarship on the role of water in General Francisco Franco's dictatorship in Spain (Swyngedouw, 2007a; 2015; Lopez-Gunn, 2009). Franco sought to unite the nation and legitimise his dominance through the material and political engineering of the waterscape, using the supply of water as an incentive to secure the support of landowners and farming interests, technocrats, nationalist movements and the army (Lopez-Gunn, 2009). By using hydrology to unite previously-disparate interests, the dictatorship was able to further legitimise its rule and cast itself as the actor to save Spain from *pertinaz sequia* (the persistent drought) (Lopez-Gunn, 2009). As a result, Franco's reengineering of Spain's water resources also constituted a reconfiguration of the nation's political landscape, via the development of alliances and the unification of previously-competing territorial interests (Swyngedouw, 2007a; 2015).

Researchers have explored how large dams in many states become endowed with a nationalist symbolism and significance (Mitchell, 2002; Swyngedouw, 2015; Menga, 2015). In Tajikistan, the symbolic nationalist meaning of the Rogun Dam has resulted in the government's continued insistence over twenty years that the project will be completed, regardless of the costs - in what Menga (2015: 480) has defined as a "Rogun ideology." Similarly, the Tarbela Dam in Pakistan embodied a direct attempt by central government to concretise their vision for a united nation in the post-independence era (Akhter, 2015b). Within these cases, the building of a dam was asserted by pro-dam actors as consolidating a new form of political rule in a fragmented state (Akhter, 2015b; Menga, 2015). A similar process is currently taking place in contemporary Afghanistan; where large infrastructure projects are cast as necessary for socio-economic development and political sustainability (Ahlers et al., 2014). As a result, the infrastructure becomes a 'set piece'¹¹ of modernist nationhood, similar to the hosting of sports tournaments, nuclear arsenals or space programmes (Bromber et al., 2014: 290). In a post-colonial political context, the building of a large dam not only demonstrates national technical progress but also represents a process of emancipation from the former colonial powers and a new dawn for infant nations (Mitchell, 2002;

¹¹ The term 'set piece' is borrowed from the terminology of film production, where it is used to describe a scene or series of scenes that require extensive spending (Bromber et al., 2014: 290).

Mossallam, 2014; Miescher, 2014; Akhter, 2015a). As a result, a dam develops a nationalist significance that extends well beyond its technological character (Nixon, 2011: 150-174). For example, the Akosombo dam in Ghana became a signifier of President Kwame Nkrumah's personal power, with the project dubbed 'Nkrumah's baby' by the Ghanaian media (Miescher, 2014). The Aswan High dam became a similar symbol of the bright future of President Gamal Abdel Nasser's Egypt, with the project presented as representative of an Egyptian future of economic development and technological prowess (Mitchell, 2002; Mossallam, 2014). Akhter (2015a: 65) has labelled these commitments to infrastructure as 'developmentalist passive revolutions', in which elites sought political legitimacy through the acceleration of national economic development and the construction of infrastructure. The embrace of hydraulic works as a symbol of progress is well illustrated in the oft-cited words of Jawaharlal Nehru who, when inaugurating the Bhakra Nangal Dam in 1963, labelled dams the "temples of modern India" (in Everard, 2013: 28). In making this statement, Nehru presents the construction of dams in a spiritual sense, highlighting the perception that the projects represented a landmark of national progress and modernity.

It is in this context of regime-consolidation and nationalism that the construction of a dam develops a symbolic character, representing a political project and the consolidation of a worldview related to national progress (Cunningham, 2007; Abbink, 2012; Lee, 2013; Isaacman & Sneddon, 2000). However, scholarship does not only engage in the highlighting of the political function of a project but also analyses the storylines that these legitimise hydropower projects and their impacts. I will now turn to these discussions below.

The role of 'storylines'

In exploring the role of political variables in the planning and construction of dams, scholarship has explored how the presence of these variables is evident in the discourse that surrounds a project's development (Isaacman & Sneddon, 2000; Warner, 2004; Kaika, 2006; Cunningham, 2007; Otero et al., 2011; Abbink, 2012; Lee, 2013; Ahlers et al., 2014). Drawing on the work of Hajer (1995: 56) I label these legitimising tropes and narratives as 'storylines', defined as "a generative sort of narrative that allows actors to draw upon various discursive categories to give meaning to specific physical or social phenomena." Storylines both simplify and rationalise certain definitions of problems or solutions, rallying actors into supporting projects and following courses of action (Hajer, 1995).

A number of concepts, tropes and narratives have historically been presented by pro-dam actors to legitimise dam-construction. These include notions of the 'conquering' of nature, hydropower as a technical solution to socio-political problems, the role of infrastructure in economic development, dams as symbolic of a nationalist project and assertions of the economic

development to be stimulated by the project's construction (Bakker, 2000; Kaika, 2005; Molle et al., 2009; Ahlers et al., 2014; Akhter, 2015b; Warner et al., 2017). Within scholarship, these legitimising concepts are presented as having an instrumental value in the consolidation of legitimacy and power, becoming adopted by pro-dam actors to legitimise projects, regardless of their social and environmental impacts (Molle, 2008; Akhter, 2015b; Warner et al., 2017).¹² As Akhter (2015b) has described in the case-study of Pakistan, the failure to demonstrate these narratives effectively heightens potential opposition to the infrastructure in question.

In exploring the role of these storylines in processes of dam construction, scholarship has highlighted how pro-dam actors have frequently appealed to a storyline of *high modernism*¹³ to link a dam project to processes of economic development (Klingensmith 2007; Sneddon 2012; Isaacman and Isaacman 2013; Worster 1985; Reisner 1993; Swyngedouw 1999a; Dinmore, 2014; Molle et al., 2009; Crow-Miller et al., 2017a; Crow-Miller et al., 2017b; Warner et al., 2017). Within a storyline of high modernism, dams are perceived as the key to national economic growth and a symbol of 20th century modernity, defined as the anthropocentric 'conquering' and 'harnessing' of nature (Klingensmith, 2007; Sneddon and Fox, 2008; Molle et al., 2009; Isaacman & Isaacman, 2013). A storyline of high modernism is evident in the primacy of the *hydraulic mission* – a worldview that asserts that every drop of water that made it from the river to the sea was wasted - which has provided an impetus for the development of water infrastructure in the 20th century (Molle et al., 2009).¹⁴ For example, in Spain, Joaquín Costa, the founder of the Spanish *regeneracionismo* ('regenerationism') movement declared "Let's tame the rivers with the brakes of dams and the chains of canals" as part of a wider political effort to modernise the Spanish state (Costa, 1911; cited in Ibor et. al. 2011: 259). Furthermore, a storyline of high modernism may endow a dam project with a symbolism of modernity, whilst creating parallels with the past – with the *regeneracionismo* movement arguing that the management of water would restore national pride in the Spanish nation. This can also be evident in the architectural qualities of a dam project, with the physical design of infrastructure often invoking a modernist symbolism. For example, the façade of the Marathon Dam in Greece was endowed with neoclassical ornamentation made from the same Pentelikon marble that was used in the building of the Parthenon. Kaika (2006: 278) characterised this design as architecturally linking the high

¹² Molle (2008: 133) has defined these narratives as "nirvana concepts", which obscure the political interests behind these projects.

¹³ *High modernism* acts as a worldview that prioritises techno-scientific endeavour and the centralisation of both knowledge and decision-making (Scott, 1998). This worldview is based on the assumption that societal progress can be found in schemes that reengineer both society and nature and the enlistment of nature and populations into a quest for economic development (Scott, 1998).

¹⁴ This 'mission' has rooted in the state-led development of irrigation that occurred in the colonies of Great Britain, the Netherlands and France in the 1800s; as well as similar processes in the United States (Wester et al., 2009; Molle et al., 2009).

modernism of the dam to the rich history of Ancient Greece. It is this interaction between infrastructure and ideology that has caused McCully (2001: 2) to describe dams as "concrete, rock and earth expressions of the dominant ideology of the technological age."

Storylines of high modernism are predicated on the role of dam-construction in wider policies of economic development, with the language of development providing a justification for the reallocation of water resources and societal transformation and sacrifice (Warner, 2004; Lee, 2013). For example, the Narmada Valley Development Authority's construction of dams in the Narmada River basin in Madhya Pradesh, India was legitimised by the adoption of a storyline of development to justify the population displacement that made the schemes infamous (Baviskar, 1995; Chapman, 2007; Marino, 2012). Similarly, Ghana's Volta River Project – and the displacement of local populations for its construction – was legitimised by promises of societal progress, with the project cast as a gateway to national economic development (Johnson et al., 2015). Within this case, displacement was reframed as a positive episode, with the local populations sacrificing their homes and livelihoods in the interests of the nation (Johnson et al., 2015). Storylines of economic development are also ideologically-malleable, being adopted by different actors. In a study of Cahora Bassa dam in Mozambique, Isaacman & Isaacman (2013) have found that, despite different ideologies and economic agendas, developmentalist discourse surrounding the dam was demonstrated by the Portuguese colonial regime, the post-independence socialist state and its free-market successor. As a result, the storyline of high modernism is open to adaptation and reconfiguration by different pro-dam actors, of divergent ideological and political backgrounds and beliefs (Isaacman & Isaacman, 2013).

The storylines adopted by pro-dam actors to justify dam projects are dynamic, adopting new demands to legitimise dam projects (Molle, 2008; Abbink, 2012; Everard, 2013; Lee, 2013b; Dye, 2016; Warner et al., 2017). Within contemporary storylines, the *hydraulic mission* is often alluded to by pro-dam actors to legitimise a hydropower project as a technological solution to problems of water scarcity and the security of supply (Bakker, 1999; Kaika, 2003; Mehta, 2003; Alatout, 2008; Buchs, 2010; Islar & Boda, 2012; Urquijo et al., 2015). Scholarship has demonstrated how this storyline of water shortages portrays scarcity as a natural phenomenon, obscuring its anthropogenic dimensions and cast a water infrastructure project – such as a dam of an inter-basin transfer – as the only solution to such issues (Mehta, 2001; Crow-Miller, 2015). Crow-Miller (2015: 173) has labelled these as 'discourses of deflection', deflecting attention away from issues and outcomes that do not fit in the storyline's defined problems and prescribed solutions and restricting alternatives. Storylines of naturalised scarcity – with shortages presented as a result of climate change – are forwarded by pro-dam actors to dispute opposition assertions of potential alternatives, such as the management of demand (Crow-Miller, 2015). The use of a storyline of scarcity has two consequences: first, the creation of a necessity of action (Warner, 2004; Yong &

Grundy-Warr, 2012; van Wijk & Fischhendler, 2017; Warner et al., 2017) and, second, the restriction of alternatives (Mehta, 2001; Alatout, 2008; Urquijo et al., 2015). As Warner (2013) has illustrated in the case of the Toshka Project in post-Mubarak Egypt, a discourse of urgency depoliticises the political problems that accompany the construction of infrastructure, with the narratives surrounding the project not only representing a diversion of a river but a political diversion to provide a legitimacy of action. This urgency frame provides a route to control the policy agenda, allowing for the restriction of alternatives and the consolidation of existing asymmetries of power (van Wijk & Fischhendler, 2017).

The reconfiguration of storylines by pro-dam actors is also evident in how these legitimising narratives can change over time (Lopez-Gunn et al., 2012; Edwards, 2013; Isaacman & Isaacman, 2013; Warner et al., 2017). For example, dominant storylines in Spanish water policy have transformed over time – from narratives of rural modernisation by irrigation in the 1970s to contemporary discourses adopted to justify the reallocation of water towards more-profitable uses (Lopez-Gunn et al., 2012). Similarly, Edwards (2013) has shown in the case of Australia that storylines forwarded to discuss the management of water have shifted from assertions of climatic constraints to past mismanagement to future scarcities created by environmental change. Similarly, pro-dam actors in China have combined narratives, presenting dam construction as a national project of economic growth, technological development and national identity, as well as the material realities of regional disparities in water supply (Crow-Miller et al., 2017b; Lee, 2013b; Le Mentec, 2014). For example, Le Mentec (2014: 385) has argued that, in the case of the Three Gorges dam, this ‘myth of progress’ was developed in reference to ancient legends, such as Yu the Great¹⁵, to construct the project as signifying a new chapter in Chinese history. In adopting new legitimising tropes and narratives, pro-dam actors illustrate a dynamism of the storylines forwarded to support a dam project, with these storylines absorbing new demands (for example, related to water insecurity) to legitimise a dam project.

It is by adopting new storylines that proponents of large dams increase the legitimacy and support for these projects (Warner et al., 2017). To gain this support, pro-dam actors can forward storylines that absorb emergent grievance and demands (such as for employment, energy security or secure water supply) into pro-dam storylines, transforming these calls into legitimising devices. For example, international storylines of the War on Terror have been absorbed into storylines legitimising the Ilisu Dam in Turkey (Warner, 2010). Similarly, the use of a language of *sumak kawsay* and *Buen Vivir* in contemporary pro-dam storylines in Ecuador has also been adopted by pro-dam actors (Warner et al., 2017), despite its foundation in a movement calling for respect for Mother Earth. As a result, pro-dam storylines demonstrate an adaptive capacity that ensures their

¹⁵ Yu the Great (Chinese: 大禹) was a mythological ruler in ancient China, famed for his policies of water control.

resilience against opposition (Molle et al., 2009; Warner, 2010; Allouche et al., 2015; Huber & Joshi, 2015; Warner et al., 2017). Scholarship has explored a number of contemporary storylines that provided current paradigms of the management of water resources with legitimacy, including integrated water resources management (IWRM) (Allan, 2003; Molle, 2008; 2009; Warner et al., 2014; Gerlak & Mukhtarov, 2015), public participation (Özerol et al., 2013) and the water-energy-food nexus (Middleton et al., 2015), with all advanced as concepts that underpin dominant storylines in the management of water. The absorption of these additional demands demonstrates that pro-dam discourses do not have a fixed character but are reconfigured by pro-dam actors over time, with new concepts and tropes providing dams with renewed legitimacy (Warner et al., 2017).

In summary, pro-dam actors forward storylines to legitimise a dam project, presenting it as representative of a solution to a particular problem or demand or as symbolic of a wider political project. These storylines act to simplify the project, deflecting opposition critique and restricting alternative voices. Whilst these storylines are dynamic and able to absorb new concepts and demands, they remain open to contestation by resistance actors. However, these ‘moments of contestation’ remain understudied in scholarship. I will now turn to how pro-dam storylines are challenged below.

The importance of moments of contestation

With the construction of a dam characterised by a period of interplay between pro-dam and resistance actors, the dominance of a pro-dam storyline - or the consolidation of a pre-existing political project and power asymmetry - is by no means assured but is, instead, subject to contestation (Hochstetler, 2011; Lee, 2013; Thomas, 2013). Whilst a dominant trend in scholarship has been focused on the role of storylines in moments of consolidation, there exists a degree of literature that explores the interplay between pro- and anti-dam groups within ‘moments of contestation’ (Whitehead et al., 2007). I divide this scholarship on moments of contestation into three trajectories, which I define below.

The first trend has been a focus on how pro-dam storylines act to exclude the voices of resistance actors (Krueger & Gibbs, 2007; Yong & Grundy-Warr, 2012; Ozen, 2014; Huber & Joshi, 2015; Hommes, 2016). For example: in the contest over the Sardar Sarovar dam in India’s Narmada Valley, opposition networks were marginalised and trivialised by pro-dam coalitions, with activists labelled as ‘youngsters’, ‘boys and girls’ and ‘eco-fundamentalists’ to discredit their credentials as political opposition (Baviskar, 1995: 235). Similarly, in the construction of dams on the Omo River, the Ethiopian pro-dam coalition forwarded storylines to cast international opposition networks as a roadblock to national progress (Abbink, 2012). As Prime Minister Meles Zenawi argued in 2011, “they don’t want to see [a] developed Africa; they want us to remain

undeveloped and backward to serve their tourists as a museum” (in Abbink, 2012). In making these statements, pro-dam actors forward storylines to delegitimise resistance actors, casting their grievances and demands as unacceptable or subversive.

Storylines that dismiss opposition actors can also take the form of the demonisation and criminalisation of opponents. The Turkish government has delegitimised such groups via their labelling as criminals and terrorists who are intent on blocking the economic progress of the nation (Ozen, 2014). The demonisation of opposition actors is also evident in the storylines forwarded by English pro-dam actors to legitimise the Capel Celyn project in Welsh Snowdonia in the 1960s, with opposition to this project cast as a separatist movement that did not care for the wellbeing of the rest of the country (Cunningham, 2007). By linking these opposition networks to a political separatism, the pro-dam groupings diminished the resistance group’s authority outside of Wales by positioning this dissent as antithetical to the constructed meaning of the dam. It is in drawing on these storylines that pro-dam coalitions can discredit opposition networks and exclude their alternative understandings of the infrastructure in question.

However, in focusing on pro-dam storylines that dismiss opposition, this scholarship does not address how these storylines remain contestable and open to reconfiguration and redefinition (Baviskar, 1995; Cunningham, 2007; Warner et al., 2017). If we accept that hydropower projects have a political character, we also need to explore how this can be contested. Unlike the infrastructure itself, the storylines that surround dams are not fixed in place but remain open to reinvention and contestation (Rothman, 1993; Baviskar, 1995; Carvalho, 2006; Cunningham, 2007; Hochstetler, 2011; Marino, 2012; Lee, 2013; Thomas, 2013; Isaacman & Isaacman, 2013; Evren, 2013; Hensengerth, 2014; Kirchherr et al., 2017). It is necessary for scholarship to focus on these contests to understand how pro-dam storylines are contested in different ways and reconfigured by resistance actors. It is in these contests that the dynamism and adaptability of pro-dam storylines is tested - with resistance actors not only opposing the project itself but critiquing its location within wider storylines, such as those related development or nationalism.

The second trend in scholarship identified explores how anti-dam actors advance new storylines – often based on particular issues or impacts – to challenge the planning and construction of a dam. Although the contests over dams often encompass local concerns related to issues of the distribution of costs and benefits, the sovereignty and recognition of indigenous communities and environmental impacts (Sneddon & Fox, 2008; McCormick, 2010; Matthews, 2012), those actors opposed to a dam also incorporate additional demands and grievances into their criticism of the project, transforming the dam projects into symbolic spaces of a wider political significance (Cunningham, 2007; Thomas, 2013). For example, the Welsh resistance to the Tryweryn dam in the late-1950s linked the flooding of the small village of Capel Celyn to a nationalist storyline of

the protection of Welsh culture and language and the subservience of the Welsh landscape to English interests (Griffiths, 2014; Atkins, 2018b). Although unsuccessful, the forwarding of these storylines provided a strong counter-narrative to pro-dam storylines related to the utilitarian management of water resources and what was deemed the 'national interest' (Atkins, 2018b). This illumination of the impacts of a dam project on cultural heritage continues in the contemporary era. Anti-dam activists in Myanmar have opposed the Myitsone dam on cultural grounds, arguing that the construction of the project will result in the disruption of spiritual activities in the region (Kirchherr et al., 2017). In forwarding this storyline, resistance actors illuminated a number of cultural impacts of the project that remained unaddressed in the assertions of pro-dam actors. In doing so, these actors – resisting the project – were able to not only oppose the project but contest its definition as a project with limited impacts.

Although moments of contestation in environmental politics - including the construction of a dam project - often occur at the local level (Hurley, 1995; Usher, 2013), local resistance movements contesting policies or infrastructure locate their opposition within global storylines, appealing to a broader constituency and linking their opposition to environmental issues or solutions of a greater importance (Gordon & Jasper, 1996; Keck and Sikkink, 1998; Rootes, 1999; 2007a; 2013; Garavan, 2007; della Porta & Piazza, 2007; Neville & Weinthal, 2016). This may occur through various *framing processes*, which allow for local movements to articulate their grievances, a shared identity and a desire for transformative change (Snow & Benford, 1992; Benford & Snow, 2000); or by gaining the support of national and international organisations (Princen & Finger, 1994; Rootes, 1999; 2007; Doherty & Doyle, 2006). In doing so, opposition networks against dams engage in the provision of alternative meanings, problems and solutions to rearticulate the project within a context divergent from the storylines of the proponent. The provision of these storylines by environmental movements perform a strategic function (Keck & Sikkink, 1998; Tarrow, 2005). It is by forwarding these wider storylines that local environmental movements can come to represent wider political questions, becoming detached from their immediate environmentalist or ecological origins and taking on a greater political significance (Haynes, 1999; Rootes, 2007; 2008; Garavan, 2007). It is this process that provides a key factor in the effectiveness of localised environmental movements to achieve change (Rootes, 2013:7).

The forwarding of a storyline to locate opposition within a wider context and importance represents what Neville and Weinthal (2016) describe as a *scaling up* of local protests and activism, where contestation that initially originated at the local level is presented within a storyline of regional, national or global importance. This 'scaling up' is understood as the adoption of a universalising storyline to generate wider support for local grievances and demands and contest dominant storylines (Gordon & Jasper, 1996; Keck & Sikkink, 1998). For example, Neville & Weinthal (2016) have recently explored such a process in the Yukon of Canada, where

a movement against the siting of a liquid natural gas facility (LNG) in the area articulated the struggle in local (regarding safety and costs), regional (risks to landscape and water security) and global (climate change) terms. These activists gained regional and national support by linking local concerns regarding the siting of infrastructure to broader issues of water and air pollution and climate impacts (Neville & Weinthal, 2016). Similarly, in exploring the protests against the bulldozing of Gezi Park in Istanbul, Mert (2016) highlights how the destruction of this urban space and the government's use of force to quell protests against it, became key signifiers in a storyline that accompanied the unification of a number of previously-disparate groups and demands, marginalised by the ruling government. Within this case, opposition to an environmental policy become inscribed with a new, wider meaning, with the destruction of Gezi Park transformed into a landmark event for a movement focused on democratic reform. This process of 'scaling up' is constituted by actors advancing storylines that demonstrate the wider resonance of their opposition, casting an infrastructure project as not only socially and environmentally damaging at the local level but as having a wider political symbolism.

The final trend – and most important in the formulation of this thesis – explores how anti-dam actors and movements not only forward additional storylines to critique the project but to also challenge dominant pro-dam storylines. The storylines of pro-dam and resistance actors do not exist in isolation from one another and are, instead, engaged in an act of contestation. Whilst pro-dam actors may advance storylines to deflect opposition criticism, resistance actors also directly appeal to or critique these pro-dam storylines forwarded to legitimise a project (Abbink, 2012; Yasuda, 2015). For example, in the development of the Kamchay dam in Cambodia, anti-dam activists forwarded storylines that directly challenge those of pro-dam actors, critiquing claims of the benefits of hydropower for national-level economic development and drawing attention to the project's localised social impacts (Hensengerth, 2015). In forwarding storylines related to social impacts, resistance actors illuminated the consequences of hydroelectric dams that remained unaddressed in dominant pro-dam storylines. It is this highlighting of social impacts that resulted in a growing discrediting of large dams towards the end of the 20th century – as evident in the 2000 report by the World Commission on Dams (WCD), which highlighted the numerous social issues faced by communities impacted by dam construction (WCD, 2000).

An example of a moment of contestation in which anti-dam actors contest dominant pro-dam storylines that is well-studied in scholarship is that of resistance against the construction of a series of dams of the Narmada Valley in India in the 1980s (Baviskar, 1995; Routledge, 2003; Marino, 2012). Scholarship exploring this resistance has demonstrated how the resistance against the Narmada projects not only directly opposed the dams - but also engaged in a critique of the pro-dam storylines that associated the projects with notions of economic development (Baviskar, 1995; Chapman, 2007; Marino, 2012; Nayar, 2013). The opposition network, the *Narmada*

Bachao Andolan (NBA) presented an alternative to this pro-dam storyline of development, highlighting additional issues and impacts that were absent in pro-dam storylines. Within anti-dam storylines, the project was presented as a form of cultural erasure of the traditional Adivasi population of the area, with the way of life of these communities celebrated by opposition actors as “an ecologically respectful, democratically communitarian, alternate route to development” (Baviskar, 1995: 272). In forwarding this storyline, resistance actors not only opposed the project - but contested the high modernist storyline of development and highlighted the asymmetry in the sharing of the costs and benefits of the project (Ali-Boegaert, 1997; Palit, 2003; Routledge, 2003).

Although ultimately unsuccessful, the resistance to the Narmada dams demonstrates that dominant pro-dam storylines remain contestable, with the dominant storyline of economic development reconfigured to include alternative notions of development related to the protection of traditional populations and the maldistribution of costs and benefits. This storyline allowed for the growth of the anti-Narmada opposition network, with the movement formed of numerous interests at all levels that discussed the benefits and impacts of large development projects on a more general basis (Haynes, 1999). As a result, the network came to represent not just those displaced by the project but also local organisations and international campaign groups, such as Greenpeace and Friends of the Earth, allowing the struggle to manifest itself at the local, national and international levels (Haynes, 1999). The advancing of this anti-dam storyline engaged in a direct critique of the notion of economic development forwarded to legitimise the dam, pressuring the World Bank - a key funder of the project - to withdraw funding.

With the contest over a dam hinged on the imposition of a storyline to provide a lens for understanding the project and its wider consequences, it is important for researchers to analyse the different ways in which resistance actors contest, critique and reconfigure dominant storylines. Whilst recent scholarship has focused on the emergence and consolidation of a pro-dam storyline of sustainability (Bratman, 2014; 2015; Huber & Joshi, 2015; Ahlers et al., 2015; Atkins, 2017; 2018), it is important to also explore how this emergent storyline can be contested. The analysis of dominant pro-dam storylines involves not only the investigation of why the respective project is so easily represented in such a way but must also involve the study of avenues of resistance against this representation (Kenis & Lievens, 2014: 544). It is by exploring the contested character of contemporary pro-dam storylines that this thesis engages in the analysis of the different ways that resistance actors critique, challenge and modify the legitimacy of a dam project. In doing so, the subsequent chapters move beyond the analysis of the malleability of pro-dam storylines (Warner et al., 2017) and towards an understanding of how resistance actors not only oppose the planning and construction of a dam project but advance storylines that critique and reconfigure those storylines forwarded to legitimise the project.

Conclusion

In this chapter, I have presented an overview of the literature that explores the presence of political variables in the construction of dam projects. I have explored how the construction of a dam represents the consolidation of a political project - often related to notions of economic development or nationalism - and its related power asymmetries. These 'moments of consolidation' hinge upon the imposition of a pro-dam storyline, which defines a set of problems and legitimises prescribed solutions. However, the planning and construction of a dam project may also result in a 'moment of contestation', in which resistance actors challenge and reconfigure pro-dam storylines. As the example of opposition to the Narmada dams in India illustrates, the storylines provided by resistance actors not only oppose a project but also to critique and reconfigure dominant storylines forwarded by pro-dam actors. Yet, this characteristic of anti-dam storylines remains understudied in the scholarship surveyed. Research must explore how the contestation of a hydropower project also represents the provision of anti-dam storylines that discredit pro-dam assertions and provide an alternative view and understanding of the project in question. In focusing on this process of contestation, I explore how these dominant storylines are challenged by resistance actors in different ways that act to reconfigure pro-dam storylines of sustainability. In doing so, resistance storylines contest both the Belo Monte and São Luiz do Tapajós projects but also their definition as sustainable projects. It is this point that this thesis takes as its starting point.

Chapter 3

Theoretical and methodological frameworks

In this chapter, I present the theoretical and methodological underpinnings of this work. To analyse the contested character of dominant storylines related to hydropower, I draw upon two main theoretical sources: the work of Antonio Gramsci on ideological hegemony and *trasformismo* and the post-structuralist discourse theory of Ernesto Laclau, Chantal Mouffe and the wider Essex School. In outlining this framework, I assert that pro-dam actors forward storylines that absorb additional demands, transforming them into devices of legitimacy for the construction of a dam project. However, I argue that these pro-dam storylines are not set in stone and, instead, remain open to contestation. I advance post-structuralist discourse theory as providing a theoretical and methodological toolkit for exploring this contestation. In addition, I define a number of key concepts adopted within analysis - including ‘storylines’, the ‘storyline of sustainability’ and ‘depoliticisation’. In detailing these concepts, I argue that resistance actors are capable of forwarding new storylines that incorporate new demands and grievances to challenge and reconfigure dominant pro-dam storylines.

This chapter is divided into five sections. In the first two sections, I outline the theoretical framework adopted to analyse the contestable nature of dominant pro-dam storylines. I begin by introducing the work of Antonio Gramsci on ideological hegemony, before moving on to discuss the role of post-structuralist discourse theory in understanding the different ways in which pro-dam storylines may be contested. I then move on to detail the specific concepts adopted within subsequent chapters, detailing their location within the overarching theoretical framework. First, I define the term ‘storyline’ as representing a legitimising device forwarded by pro-dam actors. I then move to detail the emergent ‘storyline of sustainability’ before exploring the role of this emergent storyline in the depoliticisation of contemporary dam projects. I argue that this process of depoliticisation is reversible, with resistance actors able to forward storylines that render visible the political character of respective dam projects. Lastly, I outline the research design and methods of subsequent analysis.

Antonio Gramsci’s ideological hegemony

In studying ‘moments of consolidation’, a number of researchers have argued that the persistence of the *hydraulic mission* represents the consolidation of the worldview of a group of pro-dam actors labelled the ‘hydraulic bureaucracy’ that calls for the continued use of infrastructure to control water resources (Dieter-Evans & Benedikter, 2009: 417; Molle et al.,

2009: 328; Zwarteveen, 2011: 45).¹⁶ The ‘hydraulic bureaucracy’ – described in this thesis as the ‘pro-dam coalition’ - is resilient maintaining its legitimacy into the 21st century despite widespread criticism – as evident in the resurgence of large-scale dam building, desalination projects and inter-basin transfers in contemporary water policy (Molle, 2009; Warner et al., 2017).

The persistence of the hydraulic mission is rooted in the ability of pro-dam actors to propose projects under “the umbrella of politically charged and overriding meta-justifications” (Molle et al., 2009: 264). I understand these ‘meta-justifications’ as storylines that are adopted by pro-dam actors to legitimise hydropower projects by locating their construction within a wider set of demands or grievances.¹⁷ These storylines are malleable, with pro-dam actors able to link the planning and construction of hydraulic infrastructure to wider demands, endowing projects with a renewed degree of legitimacy (Warner et al., 2017). As a result, the hydraulic mission is reinvented – moving from a storyline of nationalism or economic development to one of sustainability. In forwarding these storylines, pro-dam actors refer to – and draw legitimacy from – pre-existing narratives within society, allowing for pro-dam actors to cast a dam as a simple, effective solution to a defined problem – be it the need for national unity, stalled economic development or scarce water supply.

To understand how pro-dam actors appeal to wider narratives to legitimise a dam project, I draw on the work of Antonio Gramsci on ideological hegemony. Within Gramsci’s (1971: 12-13; 104-106; 181-182) conceptualisation, hegemony is a socio-political situation in which a particular perception of reality is diffused throughout society. This strategy is based on the assimilation of the ideas and worldviews of a dominant coalition into wider society, thereby obstructing the formation of class-oriented networks of opposition to established political power relations (Gramsci, 1971: 12-13; 104-106). The interests of the elite permeate down to the subordinate classes – resulting in the creation of a philosophy of the masses that reflects the worldview of the dominant group (Kranberg, 1986; Crehan, 2017). Gramsci describes this sedimented consensus as *common sense*, representing the imposition of patterns of behaviour and belief on the masses to culturally legitimise the dominance of the privileged social groups (Gramsci, 1971). As such, Gramsci (1971: 418) concludes that this common sense conceals reality, limiting the ability of social groups to truthfully know the world that they inhabit: “The popular element ‘feels’ but does not always know or understand”. Within this reading, the leadership and control of subordinate groupings by a dominant group is legitimised by “bringing

¹⁶ Scholarship has highlighted how the supremacy of these hydraulic bureaucracies has often resulted in infrastructural fixes fuelling rent-seeking and symbolising state authority over the management of water resources (Molle et al., 2009; Verhoeven, 2015).

¹⁷ For example, the justification for the Rogun Dam in Tajikistan was inscribed with a romanticised vision of a better future for the Tajik population, resonating with well-sedimented social demands related to nationalism and statehood (Menga, 2018).

about not only a union of economic and political aims but also intellectual moral unity”
(Gramsci, 1971: 182).

In highlighting the ideational character of hegemony, Gramsci (1971) differentiates between two forms of control, that of dominance (violent, physical, coercive) and hegemony (ideological, underlying, consensual). These can be further understood as both a ‘war of manoeuvre’ (representing coercive dominance) and a ‘war of position’ (representing ideological¹⁸ control), with the latter characterised as gaining the ‘spontaneous’ consent of the population to the worldview and priorities imposed by the dominant socio-political group (Gramsci, 1971: 12-13). As a result, a dominant group does not consolidate its hegemony by force only but must engage in the generation of consent via a moral-intellectual leadership (Rupert, 1993; Robinson, 2005).

With a Gramscian ‘war of position’ representing ideological control, a ruling class must make compromises with subordinate groupings as a mean to secure their participation in the ideological mission of the dominant faction. To do so, the dominant group will absorb the grievances of demands of other groups into the ideological worldview of the dominant faction (Gill, 1993). These groupings become assimilated into an alliance of socio-political forces that Gramsci names a *historic bloc* (Gramsci, 1971: 168).¹⁹ For Gramsci, this coalition represented more than just an alliance of class factions. Instead, it encompassed aspects of the economic, sociocultural and political realms into a social formation that united varying demands and grievances into a coherent and powerful worldview (Rupert, 1993). Gramsci (1971:106) labels this process *trasformismo* – or a “dictatorship without hegemony”, representing both the co-option of the demands of subaltern classes and their exclusion from any protagonism in politics (Coutinho, 2012).²⁰ This absorption of grievances and demands into dominant ideologies represents the assimilation of pre-existing discourses by dominant grouping, with common sense formulated from pre-existing structures of religion, folklore and superstition (Crehan, 2002; Krancberg, 1986) – that were available for appropriation by the ruling classes.

Gramscian notions of hegemony illuminate how the dominance of a social or political group is not predicated on a material, violent dominance but also involves securing a degree of consent

¹⁸ Within Gramsci’s (1971) work, ideology is used to describe a network of social relations and apparatuses that dictate the flow and direction of power in a given society. I follow this definition.

¹⁹ Notably, these blocs are grounded in historically specific conditions and can have a conservative or revolutionary character (Rupert, 1993).

²⁰ Coutinho (2012) has highlighted how processes of *trasformismo* are evident in Brazilian history. For example, the governments of Fernando Henrique Cardoso and Luiz Inácio Lula da Silva frequently co-opted dissenting intellectuals into the bureaucratic apparatus of their governments and the dictatorship of Getúlio Dornelles Vargas assimilate the working classes into its power-bloc via socio-economic concessions (Coutinho, 2012)

from the population. This generation of consent and legitimacy involves the absorption of wider grievances and demands into the ideology of the dominant class. This can be found in Gramsci's (1971: 323-333; 420) assertion that this common sense is formulated by drawing from pre-existing structures of religion, folklore,²¹ popular culture, and science and philosophy:

Common sense is not something rigid and immobile, but is continually transforming itself, enriching itself with scientific ideas and with philosophical opinions which have entered ordinary life. 'Common sense' is the folklore of philosophy, and is always half-way between folklore properly speaking and the philosophy, science, and economics of the specialists.

(Gramsci, 1971: 326)

Within the context of dam-construction, I understand Gramsci's (1971) discussion of the incorporation of "opinions that have entered normal life" as representative of how pro-dam storylines absorb pre-existing narratives related to economic development, nationalism and statehood and – currently – sustainable development. Drawing on Gramsci to conceptualise hegemony as a process in which social groups and demands are absorbed into a dominant ideology, I understand the *hydraulic mission* as representing a hegemonic project with an adaptive capacity to adopt new storylines to address and absorb the grievances and demands of additional groups. Pro-dam actors increase the legitimacy of a dam project by presenting it as a solution to various issues, previously seen as distinct from the building of this infrastructure (such those for employment, energy security or secure water supply) into the worldview of the hydraulic mission, representing a process of *trasformismo* and communicating them as justifications for a dam project. For example, assertions of energy security in contemporary pro-dam storylines represent the absorption of popular demands related to a secure and affordable energy supply to generate a consent for – and a legitimacy of – the project in question. It is by absorbing these additional, popular demands that pro-dam actors position respective hydropower projects as indispensable to ensuring future energy supply, whilst maximising the number of beneficiaries of the project (with the promise of energy security extended to various constituents) and appealing to fears of a loss of energy supply (Atkins, 2017).

It is by adopting new demands and grievances into its legitimising storylines that the pro-dam coalition demonstrates an adaptive capacity, with pro-dam actors adopting new storylines to consolidate the dominance of the hydraulic mission. However, these hegemonic storylines are not set in stone and, instead, remain contestable. As a result, it is important to adopt a theoretical framework that explores not only how pro-dam storylines can become dominant – but also how

²¹ For Gramsci (1971: 34; 197), folklore does not represent the passing down of shared stories and superstition but, instead, is understood as the residue of historic conceptions of the world held by subaltern populations.

this adaptive capacity can be contested. A Gramscian perspective on hegemony encourages researchers to not only explore how dominant ideologies can become sedimented but to also describe how social movements – of whatever demand or grievance – work to disorganise this societal consent and stimulate dissent (Carroll & Ratner, 1996). This represents the challenging of dominant storylines and the provision of an alternative vision of the projects studied. It is this that I turn to below.

Post-structuralist discourse theory

In exploring how resistance storylines concerning the Belo Monte and São Luiz do Tapajós have engaged in a process of reconfiguration of the storylines forwarded by pro-dam actors, I argue that the post-structuralist discourse theory (herein discourse theory) of Ernesto Laclau, Chantal Mouffe and the wider Essex School of discourse analysis provides both the theoretical foundations and a methodological toolkit for analysis of the hegemony and contestation of pro-dam storylines.

Following Gramsci, Laclau and Mouffe (1985) place power and its associated contests at the top of the research agenda - seeking to understand how competing groups work to achieve this hegemony. Within this framework, power consists of the creation of discourses that define the political frontiers of society, via the creation of boundaries of inclusion and exclusion that conceal the contingency of social relations and provide a legitimacy to relations of asymmetry and domination (Howarth, 2010). Rather than rooted in coercion, power is understood as the exclusion of alternative meanings and identities (Howarth & Torfing, 2005).

Within discourse theory, hegemony is understood as a practice in which competing social groups and ideologies construct a new collective social identity based on the organisation of demands (understood as the basic unit of analysis) within a net of discourse,²² as well as the exclusion of others (Laclau, 2005). Laclau and Mouffe (1985) define *discourse* as representing the partial fixation of a web of signs (specific meanings or concepts), positioned in relation to one another, within a signifying chain.²³ Within discourse theory, the partial fixation of meaning is constituted by the structuring of certain meanings at the expense of others - defined as *articulation* (Laclau & Mouffe, 1985: 105). When a *sign*, understood as an object without meaning, is provided with

²² This follows from the Saussurean tradition of discourse, conceptualising it as a fishing net, in which all linguistic signs can be understood as knots in the net, with their meaning provided by their relation and difference from each other (evident in their particular position within the net) (Jørgensen & Phillips, 2002).

²³ In adopting this definition, I depart from a understanding of ‘discourse’ provided by Dryzek (1997: 8) as “a shared way of apprehending the world”, that “enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts” and towards a conceptualisation that argues that discourse represents a particular set of meanings constituted via the exercise of power or exclusion (Howarth, 2010).

new meaning via the production of relations with other objects, it becomes an *element* and is drawn into the net of discourse. For example, when pro-dam actors appeal to notions of energy insecurity to legitimise the planning and construction of a project, they engage in an act of articulation that draws the sign of energy security into the pro-dam signifying chain, positioning this meaning in relation to the meaning of other signs (the dam) and endowing it with meaning (i.e. that the dam project solves issues of energy insecurity).

A sign is not exclusively linked to one act of discourse and a single meaning. This sign - defined as a *floating signifier* - can exist simultaneously in numerous, competing discourses, allowing for multiple definitions. Competing discourses not only instil a prescribed meaning in the element but also attempt to limit these alternative meanings. Once all alternative meanings have been limited, the *element* is transformed into a *moment*, representing an act of discourse that enjoys a fixed meaning. After its entrance into a particular signifying chain, a moment can continue to develop meaning, allowing it to become a central object of the discourse, or a *nodal point*, defined as a privileged sign that provides the focal point of the organisation of other signs. These nodal points bind together the web of discourse, assigning new meanings to other signs within that discourse. For example, within storylines that locate the construction of a dam with a nationalist project, 'nationalism' is a nodal point that binds together other signs such as 'water resources', 'infrastructure' and 'state', which are provided with a new meaning different from those present in alternative acts of discourse. The meaning of water resources is transformed to include a notion of possession – becoming 'our' water,²⁴ infrastructure is given a political connotation - linked to the material consolidation of a nationalist project, and the state acquires a new role - harnessing water resources for economic development via the construction of infrastructure.

This definition of discourse does not entail the ontological divide between linguistic and non-linguistic symbols and material parts of social life (Laclau & Mouffe, 1985; Howarth, 2000). Yet, this does not deny materiality or argue that there exists no external reality independent of social interaction or acts of discourse but, instead, asserts that society's understanding of this reality as open to variance.²⁵ Environmental objects, problems and solutions are perceived in different ways. For example, the material consequences of the building of a dam (rising water levels, population movement) are presented in the storylines forwarded by competing groups. The population displacement caused by a dam will be articulated differently by those *for* and those

²⁴ This builds on the work of Allouche (2005) on 'water nationalism', in which states work to territorialise water resources to consolidate statehood and demonstrate authority over a territory.

²⁵ As Laclau & Mouffe (1987: 82) have written, in response to claims that they deny the importance of materiality: "A stone exists independently of any system of social relations, but it is, for instance, either a projectile or an object of aesthetic contemplation only within a specific discursive configuration. A diamond in the market or at the bottom of a mine is the same physical object; but, again, it is only a commodity within a determinate system of social relations."

against the respective project. Whilst opponents may present this experience as socially-damaging and fragmentary, a proponent for a project may argue that those displaced are well-compensated and moving to safer, modern dwellings (Johnson et al., 2015).

The prescription of meaning to signs and identities via their positioning in relation to others occurs through two key logics within the discourse theory.²⁶ The first of these is a *logic of equivalence* which articulates a sameness. In doing so, it seeks to generate an equivalence between various grievances and demands to create and represent a unified bloc opposed to a common enemy by simplifying the political space and reducing the contradictions between different actors. In articulating this equivalence, resistance actors present particularistic demands within a universal discourse, via their location within a signifying chain (Laclau, 2005; Griggs & Howarth, 2017). An example of this can be seen in how resistance actors advance storylines that locate grievances and demands concerning a respective project within a wider political terrain. Resistance movements that have adopted storylines related to the destruction of cultural heritage of an area by a dam project (such as in the case of the Sardar Sarovar dam in India) articulate their resistance to the dam as equivalent to wider threats to cultural protection, traditional communities and the maldistribution of costs and benefits. Through this process, local, particularistic demands are articulated within a wider storyline of environmental politics.

The *logic of difference* runs contrary to this constructed equivalence – with an act of discourse articulating the differences between and plurality of competing demands and identities. Through this act of articulation, demands and identities are dismantled, allowing their absorption into a dominant identity, ideology or storyline to consolidate power (Howarth, 2010; Griggs & Howarth, 2017). A logic of difference takes two forms. The first of these is an institutionalist form, in which demands are addressed by power-holders without affecting the existing consensus; and, second, a transformist form, in which concessions are granted by the power-holders to address demands placed before them (Laclau, 2005; Griggs & Howarth, 2008; Howarth, 2010). This latter logic of difference has parallels to the Gramscian concept of *trasformismo*, in which the grievances and demands of opposition groups are absorbed into the ideology of a dominant grouping. It is through this logic of difference that alternative discourses and identities are restricted from - or denied the opportunity to present alternatives to the dominant worldview (Mouffe, 2002). For example, in adopting demands related to naturalised water scarcity and the need to secure supply in the face of increasing demand, the logic of difference excludes alternative understandings of the causes of water scarcity and of the role of the respective projects in allaying these problems (Bakker, 1999; Mehta, 2003). The logic of difference operates to separate the demands that are absorbed into pro-

²⁶ An additional logic within discourse theory is the *logic of fantasy*, in which an act of discourse is articulated to symbolise a lack of identity but simultaneously allude to a fullness and certainty, with a lack of threat to the respective identity (Stavrakakis, 1999). This third logic is not discussed in this project.

dam storylines (i.e. a focus on increased water supply) from alternative views and demands (a focus on demand management), signposting their incompatibility and addressing them as distinct, despite any potential relationship between them.

It is through these logics that an act of discourse draws together the demands of individuals (for example: for self-advancement, materialism, prosperity) under the terms of a common signifier (of economic development) and provide a common point of identification. Whilst a logic of equivalence emphasises homogeneity, a logic of difference highlights the plurality of society, emphasising the differences between groups, identities and demands and weakening competing discourses (Laclau, 2005).²⁷

It is within a process of articulation that signs (such as demands or grievances) are bestowed with new meaning - in relation to its wider signifying chain – whilst others are excluded (Torfing, 1999).²⁸ Within this conceptualisation, an act of discourse becomes an act of exclusion, with certain articulations and worldviews becoming dominant and others excluded to the *field of discursivity* (Laclau & Mouffe, 1985; Jørgensen & Phillips, 2002; Howarth & Torfing, 2005). It is this act of exclusion that plays a central role in the constitution of hegemonic politics – or the generation, reproduction and consolidation of an ideological worldview or order of society (Laclau, 2005). However, the exclusion of alternative acts of discourse to the field of discursivity creates a *surplus of meaning* that challenges the potential hegemony of a dominant discourse. The surplus of meaning limits the ability of a discourse to explain all situations. When a signifying chain is confronted by “new events that it cannot explain, represent, or in other ways domesticate” (Torfing, 2005: 16) and its validity and resonance is challenged (Griggs & Howarth, 2004). Within discourse theory, this is defined as *dislocation*, understood as when a signifying chain is destabilised by elements that had previously been excluded to the field of discursivity (Townshend, 2004). This allows for the entrance of a new signifying chain, constituted by emergent acts of articulation (Stavrakakis, 2000; Griggs & Howarth, 2004).

²⁷ Neither the logic of equivalence nor the logic of difference will ever dominate (Laclau & Mouffe, 1985; Laclau, 2005). Instead, they “mutually subvert” each other so that neither logic can completely define the social realm (Torfing, 1999: 125). As a result, the relation between these two logics is undecidable - with identities inscribed in signifying chains of both difference and equivalence, resulting in a heterogeneity of discourse, with the articulation of difference or equivalence never entirely fulfilled (Laclau & Mouffe, 1985).

²⁸ As more demands and signifiers are added to a web of discourse, the links between the signs contained within it and their original meaning are gradually loosened (Laclau, 2000; 2005a). The prevailing meaning of the discourse disconnects the signifier from its particularistic nature, with it becoming a “signifier without a signified” (Laclau, 1996: 36). This is defined in discourse theory as an *empty signifier* - or a privileged sign that’s original, particular meaning has been subsumed by its wider role within the equivalential chain (Laclau, 2005).

Although discourse theory asserts that hegemony is hinged upon the consolidation and dominance of a particular discourse or meaning, this hegemony is never assured (Laclau & Mouffe, 1985; Mouffe, 2005). Instead, hegemonic acts of discourse are temporary and open to contestation. A dominant act of discourse is always constituted in relation to those signs excluded to the *field of discursivity*, with the *surplus of meaning* resulting in an inability for an act of discourse to fully articulate all elements present. This results in the presence of additional signs that provide the terrain for alternative acts of articulation by different groups (Laclau & Mouffe, 1985: 156; Howarth, 2000; Laclau, 2000; Jørgensen & Phillips, 2002).

The *surplus of meaning* allows for the continued contestation between competing discourses, with every act of discourse susceptible to counter-hegemonic practice. Laclau & Mouffe (1985) label this contestation as ‘antagonism’, found when competing discourses and identities collide, rendering their respective limitations and key points of contestation visible (Laclau, 1977; Laclau & Mouffe, 1985; Laclau, 2005). Antagonism defines the external frontiers of a discourse or identity, invoking a line between friends and adversaries. With all social and political relations having a political (and antagonistic) origin, it is this line that defines the contingent nature of identities – defined by their relation to others (Griggs & Howarth, 2004). As a result, the contestation between groups does not consist of a clash of fully-constituted interests and identities but, instead, occurs when social agents are restricted from fully attaining a shared identity. In response, actors turn to constructing an ‘other’ that is perceived as responsible for this failure. As Mouffe (1993: 69) has stated:

Political life concerns collective, public action; it aims at the construction of a ‘we’ in a context of diversity and conflict. But to construct a ‘we’ it must be distinguished from the ‘them,’ and that means establishing a frontier, defining an ‘enemy’.

Moments of contestation in contemporary environmental politics represent a site of this antagonism, in which identities (and, with them, interests) of agents are constituted by an exclusion of the identities of others. An assertion of ownership and control over a resource often involves framing others as outsiders with no legitimate claim to the resource (Neville, 2015: 35; Neville & Weinthal, 2016: 583-585). For example, within the evoking of a nationalist symbolism of a dam project, pro-dam actors constitute their own identity (and the meaning of the dam) by linking it an area’s water resources and infrastructure, whilst dismissing the demands and identities of others as illegitimate. This is evident in the territorialisation of water resources, in which the resource becomes defined as ‘our’ or ‘my’ water, with pro-dam actors defining ownership of the water by excluding water users deemed as external to the dominant identity (Allouche, 2005).

A focus on how different actors locate the planning and construction of a dam within a wider schema of demands and grievances would allow for the adoption of an alternative theoretical framework, that of framing theory. Within this theory, an utterance of an actor activates a certain *frame*, or a particular way of making sense of policy problems, providing a route to “selecting, organizing, interpreting, and making sense of a complex reality by providing guideposts for knowing, analysing, persuading and acting.” (Rein & Schön, 1993: 146).²⁹ This approach of framing complements a Gramscian perspective – demonstrating a route through which social movements can adopt highly resonant ‘master-frames’ to appeal to new groups and create alliances in common political struggles (see Snow & Benford, 1992; Carroll & Ratner, 1996).³⁰ For example, in the 1980s, environmental racism activists in North Carolina, USA framed the siting of a chemical waste facility in Warren County within a wider schema linked to the civil rights struggle of African-American population across the country – illuminating how the impacts of such facilities disproportionately affected people of colour (Bullard, 1990). In doing so, local environmental issues were fused with pre-existing demands for racial equality, with previously-distinct social movements crystallising around a master-frame linked to the maldistribution of environmental pollution. The approach provided by framing theory allows for research to explore such a process of ‘scaling up’, detecting how movements locate their demands within a wider master-frame to gain support and galvanise dissent.

However, the presence of an overarching narrative of opposition – or master-frame – can lead to a movement becoming detached from the demands and identity of the local communities from which it stemmed (Rangan, 2000; Schlosberg, 2007). Whilst the sedimentation of a master-frame allows for what was previously a single-issue movement to move beyond a local context and towards a wider form of action (Lakoff, 2010), it can also conceal a variance of grievances and demands *within* the movement (Schlosberg, 2007; Usher, 2013). As a result, the focus on detecting a master-frame can result in the concealment of a plurality of demands and grievances (and, with them, storylines) across the resistance coalition studied.

With the resistance coalition in this case formed by a collection of individuals and groups at the local, national and international levels, a wide variety of grievances and demands are present - some of which, at times, contrast with those of other resistance actors (Carvalho, 2006; Hochstetler, 2011). Rather than focusing on describing a ‘master-frame’, this research understands the resistance coalition as demonstrating a plurality of demands, grievances and

²⁹ In successfully positioning an issue within a certain frame, speakers define a problem and delimit the routes of action available (Snow & Benford, 1992). Within this definition, framing is understood instrumentally, providing a tool to policy-makers and activists to position an issue within a wider context (Goffman, 1974; Lakoff, 2010).

³⁰ This ‘frame-alignment’ can come in a number of forms, such as ‘frame bridging’ (involving the linking of two previously-unconnected frames), ‘frame-amplification’ (clarifying a pre-existing frame to signpost the importance of a particular issue), ‘frame-extension’ (incorporating new participants and communities into a pre-existing movement and frame) and ‘frame-transformation’ (altering previous frames to address societal changes) (Snow et al., 1986).

backgrounds - present across the local, national and international levels. This necessitates a pluralism of approach, with a framework of Discourse Theory allowing for the description of interplay and contestation both between the storylines advanced by pro-dam and resistance coalitions – and *within* them.

Discourse theory provides a number of theoretical concepts that assist in the exploration of how dominant pro-dam storylines are contested by resistance actors. Within the contestation over dam-construction, the proponents and opponents of respective projects articulate demands within a net of discourse, in an attempt to hegemonise their own storylines. The Belo Monte and São Luiz do Tapajós dam projects are bestowed with meaning via processes of articulatory practice by the pro-dam and resistance coalitions, strive to fix the meaning of these signs (the dams studied) by positioning them in relation to others (notions of development, statehood, sustainability). This not only involves the articulation of relations between these signs but also the exclusion of other alternative meanings. With an act of discourse that articulates the equivalence between the Belo Monte and São Luiz do Tapajós dams and a language of sustainability proving dominant, the resistance actors' storylines must articulate additional elements from the field of discursivity into its signifying chain. I will explore this, characterised as a process of reconfiguration in subsequent chapters, analysing the additional elements articulated and the alternative storylines advanced.

In adopting this theoretical work, I draw on a number of additional concepts to analyse the different ways in which dominant pro-dam storylines are contested and reconfigured. These concepts provide a conceptual vocabulary in subsequent chapters and will be used to explore the materials analysed and the research questions addressed. I will now define these concepts below.

A role for 'storylines'

In exploring the different ways in which resistance actors contest and reconfigure dominant pro-dam acts of discourse, I draw on the concept of *storylines* (Hajer, 1993; 1995). A storyline is understood as an overarching body in which various discourses³¹ are combined into a coherent whole, with their respective complexity simplified and concealed (Hajer, 1993). For example, a pro-dam storyline of high modernism incorporates a variety of discourses including those related to industrialisation, energy supply, utilitarian notions of the *greatest good for the greatest number* and the importance of infrastructure, into a coherent storyline that is forwarded to legitimise a dam project. Although this storyline contains a range of demands and grievances, it is held together by what Hajer (1993) terms *discursive affinity*, in which previously-divergent discourses

³¹ Hajer (1993: 45) defines *discourse* as “an ensemble of ideas, concepts and categories through which meaning is given to phenomena.”

are fused by a similar way of conceptualising the world.

Storylines are adopted by *discourse coalitions* - defined as the collection of actors who utter a particular storyline, as well as the practices that conform to it - to legitimise positions or policies (Hajer, 1993). The provision of storylines provides an important route for a discourse coalition to overcome contestation and inscribe a policy, process or project with a defined meaning, understood as *discursive closure*.³² This closure is found in the simplification of complex issues and debates into an accepted storyline that acts as “a catchy one-liner” that accommodates the broadest range of arguments around a particular issue (Hajer, 1995: 59).

This process of simplification has parallels to post-structuralist discourse theory. With storylines understood as the fusing of particular accounts and ideas into a coherent whole, I understand their forwarding as representing an act of *articulation*, in which signs are given meaning by their relation to other signs in the web of discourse. Within this thesis, a *storyline* is understood as an act of articulation that links a number of *elements* (defined by Hajer as ‘discourses’) into a coherent whole. Storylines represent a signifying chain, in which the *logics of equivalence and difference* define the relations between these signs. Whilst the logic of equivalence acts as a glue that joins formerly-disparate interests into having a shared discursive affinity, the logic of difference highlights the incompatibility between these elements. These storylines are forwarded by actors engaged in a contest for the fulfilment and hegemony of certain identities and discourses at the expense of others, highlighting the presence of an antagonistic relationship between competing storylines working to inscribe signs with a particular meaning.

The role of storylines in fusing together different elements and reducing the complexity and contradictions between them is evident in the assertions of pro-dam actors. For a large-scale hydropower project to be built, numerous audiences need to be convinced to support (or, at least, acquiesce) to the project. Storylines provide an important medium through which pro-dam actors can impose their worldview on others - simplifying problems, rationalising their solutions and increasing the legitimacy of the planning and construction of a dam. For example, storylines that draw on assertions of economic development, statehood and nationalism or the need for an urgent solution to water scarcity appeal to these devices to simplify a debate by presenting it within a wider policy context. Equipped with these storylines, pro-dam actors – understood as a discourse coalition – seek to impose the prescribed meaning of a dam project, overcome contestation and achieve discursive closure. Resistance actors contest these storylines by forwarding their own

³² A number of scholars have adopted the term a ‘sanctioned discourse’ to describe the provision of a dominant narrative to legitimise a course of action, prescribe hydrological problems and policy solutions (Jägerskog, 2003; Allan, 2003; Molle, 2008; Zeitoun, 2015).

storylines that illuminate grievances, demands and impacts – and asserting alternatives.³³

The concepts defined above provide the vocabulary adopted in subsequent analysis. With this in mind, I will delineate the definitions of each term and the links between them below.

A *storyline* is understood as an overarching structure in which various discourses are combined into a coherent whole (Hajer, 1993).

An *element* (understood as akin to Hajer's conception of *discourse*) is used to refer to a sign that becomes linked to others within an overarching storyline.

It is an act of *articulation* that generates the links between elements, combining them within an overarching storyline. This may take the form of a *logic of equivalence* (that acts to simplify the links between the two) or a *logic of difference* (that acts to signal complexity and contradiction).

Both pro-dam and resistance actors forward storylines to inscribe a dam project with meaning and to hegemonise this meaning (or achieve *discursive closure*), yet this *hegemony* is never assured, with storylines always open to contestation and reconfiguration.

With pro-dam actors forwarding renegotiated and reconfigured storylines, adopting new elements and linking them to others to legitimise contemporary dam projects, emergent storylines of legitimacy become evident. In this thesis, I explore one such storyline - the *storyline of sustainability*. It is that I turn to below.

A storyline of sustainability

Whilst historic storylines legitimised dam-construction by articulating an equivalence between the infrastructure and notions of economic development, nationalism and the 'conquering' of nature, contemporary storylines illuminate the perceived links between dams and notions of sustainability and environmental health. This represents a fluidity of pro-dam storylines, with proponents of hydropower projects absorbing and co-opting new demands into the storylines that they advance. A storyline of sustainability has been forwarded by numerous actors to legitimise the return of large hydropower projects in recent years (Moore et al., 2010; Zarfl et al., 2010; Crow-Miller et al., 2017a; Warner et al., 2017). I argue that the adoption of a storyline of

³³ An alternative approach to the description of the interplay between pro-dam and resistance storylines can be found in Critical Discourse Analysis (CDA). CDA adopts a socio-cultural approach to discourse – asserting the connections between language and ideology – and, as a result, struggles for power (Fairclough, 1992). Within this reading, ideology is understood as the primary basis upon which social groups interact - with the meaning of phenomena and processes rooted in wider social structures. In this light, CDA provides a route for the exploration of the role that social structures have within the forwarding of both pro- and anti-dam storylines. To do so would enable an examination of the power structures that underpin both the primacy of 'hydraulic bureaucracies' and the continued resonance of storylines advanced to justify dam-construction. However, an approach of Critical Discourse Analysis focuses on the construction of discourse via the use of certain linguistic terms. This poses a problem for this research. With parts of the subsequent analysis based on translated materials, it is problematic to analyse these materials on the basis of lexical choice and other linguistic qualities – as required by an approach of Critical Discourse Analysis. As a result, whilst CDA provides a promising route for future research, it will not be used in this project.

sustainability represents the absorption of new elements into pro-dam storylines, providing an important example of how these devices are not fixed but may be redesigned over time.

I define a storyline of sustainability³⁴ as the deployment of assertions related to the perceived sustainability of the scheme and its role in contemporary sustainable development agendas (Fletcher, 2010; Cole et al., 2014; Huber & Joshi, 2015; Joshi, 2015; Bratman, 2015; Ahlers et al., 2015; Warner et al., 2017). In forwarding this storyline, the proponents of contemporary hydropower projects articulate the equivalence between the respective projects and concerns of climate change and processes of mitigation and adaptation, presenting the infrastructure as a renewable source of energy (Joshi, 2015; Yong & Grundy-Warr, 2012; Lee, 2013). The dam project is bestowed with new meaning, becoming positioned within a wider agenda of climate change mitigation and adaptation and are characterised as clean, sustainable and renewable energy.

Drawing on Gramscian notions of hegemony, I understand this storyline of sustainability as representative of *trasformismo*, with pro-dam actors absorbing additional demands related to environmental protection into the storylines that legitimise hydropower projects (Warner et al., 2017). The forwarding of the emergent storyline of sustainability articulates the equivalence between the respective dam project and the paradigmatic discourse of sustainable development. The dominant definition of sustainable development can be found in the 1987 Brundtland Report, which defines the concept as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). This statement represents an act of discourse that articulates a compatibility (or equivalence) between issues of environmental health and protection and notions of economic development – as well as demands for social equity. Although this equivalence overlaps with other approaches, such as ecological modernisation,³⁵ the Brundtland definition represents the paradigmatic understanding of environmental issues and possible solutions in contemporary environmental governance. This is evident in its adoption at international events, including the 1992 United Nations Conference on Environment and Development (UNCED 1992, also known as the Earth Summit) and the 2015 Sustainable Development Goals, with the asserted compatibility between economic development and environmental protection providing a dominant paradigm in contemporary environmental policy and international development.

³⁴ I follow Arias-Maldonado (2013: 438) in defining sustainability as a term that describes “any kind of socio-natural relationship which is balanced enough to be maintained in the indefinite future.”

³⁵ A school of thought that asserts that economic growth and stability benefits from environmental measures.

The paradigmatic character of the discourse of sustainable development is evident in its wide application across and beyond contemporary environmental policy – being used to describe supply chains, consumer goods and industrial practices. As different actors articulate an equivalence between sustainable development and additional elements (such as supply chains or infrastructure), the original asserted compatibility between environmental protection and economic growth has become emptied of its initial attachment to principles of environmentalism (Brown, 2016; Atkins, 2018a). Within discourse theory terminology, this can be understood as an *empty signifier* – or a privileged sign that has had its original, particular meaning subsumed by its role in a larger signifying chain (Laclau, 2005a). The emptiness of sustainable development has allowed for its absorption into the storylines adopted by powerful interest groups, such as those in the pro-dam coalition (Redclift, 1987; Leach et al., 2010; Goodman & Salleh, 2013; Tulloch & Nielson, 2014; Wanner, 2015; Atkins, 2018a).

The absorption of the concept of sustainable development into dominant storylines of environmental politics is evident in the pro-dam storyline of sustainability. This storyline is indicative of a logic of equivalence, in which pro-dam actors engage in an act of articulation that links the respective project – understood as a sign – into a new web of discourse (or storyline) based around the nodal point of sustainable development. This act of discourse positions the dam as equivalent to notions of economic development and environmental responsibility, pre-existing elements within the storyline of sustainable development. This logic of equivalence is summarised in Figure 1.

Figure 1: A storyline of sustainability

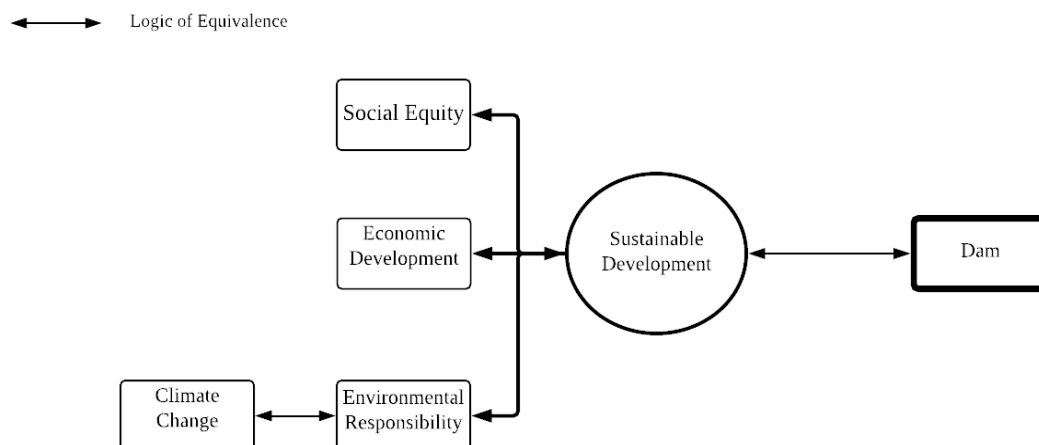


Figure 1 illustrates how a dam project becomes articulated within a wider equivalential chain that positions it alongside the nodal point of sustainable development (illustrated as a circle). In articulating this equivalence between a dam and sustainable development, pro-dam actors link the project to other elements related to the compatibility of environmental protection, economic

development and social equity. This equivalence results in the inscribing of the dam with new meaning - with pro-dam actors asserting the environmental credentials of the respective project and locate it within a wider context of sustainable development and climate change mitigation.

A storyline of sustainability as a storyline of depoliticisation

The articulation of the equivalence between a dam and sustainable development acts to exclude alternative voices and deflect their criticism of dam projects (Yong & Grundy-Warr, 2012; Huber & Joshi, 2015; Crow-Miller, 2015). Assertions of sustainability by all actors involve value judgments regarding which resources should be sustained, by which means and who they should be sustained for (Sikor & Norgaard, 1999). Through this process, interests, grievances and demands become excluded from dominant storylines. For example, the dominant understanding of sustainable development has been critiqued for being grounded in a technocratic worldview that excludes alternative articulations of sustainability (Redclift, 2005; Leach et al., 2010; Carter, 2013; Scoones, 2010; 2016). Using discourse theory, we can understand this process as representing a process of articulation that not only highlights the links between the elements present within sustainable development discourse but also excludes alternatives to the field of discursivity. These alternatives – that challenge dominant understandings of sustainability – are dismissed as undesirable, culturally-specific or unscientific (Leach et al., 2010).

Within this process of exclusion, storylines of sustainability represent the differentiation between legitimate and illegitimate actors and demands. I understand this as *depoliticisation*. Processes of depoliticisation are defined as “discursive strategies in which legitimate and responsible actors’ demands are distinguished from illegitimate, irresponsible actors and unrealistic and impossible demands” (Pepermans & Maesele, 2014: 223). In exploring this concept of depoliticisation, I draw from the distinction between *the political* and *politics* proposed by Mouffe (1995: 262-263). Within this reading, ‘politics’ refers to the numerous practices, institutions and acts of discourse that establish a certain order and organise society and ‘the political’ refers to the occurrence of antagonism that is present in all society, with no actor able to truly attain a fixed identity and a discourse unable to fully hegemonise (Mouffe, 1995). Antagonism does not necessarily have a negative character but can instead be understood as essential to democratic politics (Mouffe, 2000; 2005; 2013). A well-functioning democracy requires a clash between adversaries possessing legitimate political positions - it is this recognition that allows for the transformation of antagonism into agonism, with opponents recognising their adversarial relations but not as enemies (Mouffe, 2005). For Mouffe (1993; 2000; 2005; 2013), it is the persistent occurrence of this agonism that allows for the airing of political conflicts, social demands and ideological contests of what society *should* be. As Mouffe (2013: 3) argues, “political questions are not mere technical issues to be solved by experts. Proper political questions always involve decisions that require making a choice between conflicting alternatives.” Within this reading, the positive

consequences of political contests are highlighted, with these episodes allowing for the airing of competing grievances and demands.

It is this agonistic character of *the political* that depoliticisation limits, denying the legitimacy of alternative positions and storylines and the political character of dam projects (Mouffe, 2000; 2005; 2013; Chhotray, 2007; Swyngedouw, 2007b). By rendering a project technical, pro-dam actors forward storylines that strip a project of its political character and function, raising it above the terrain of *the political* and delegitimising resistance actors. This transforms the contestation surrounding the project from a political struggle over a contested future to a simple binary of ‘good/’evil’, ‘emotional/irrational’ and ‘patriotic/treasonous’ (Pepermans & Maesele, 2014; Ristić, 2015). For example, storylines of nationalism provide a simplifying lens through which to understand the project in question but also to locate opposition groups and alternative viewpoints as existing outside of the status quo. These storylines are deployed by pro-dam actors to configure the normative divide between legitimate and illegitimate thinking, national progress and regressive activity and isolate the opposition network from the wider community.

In forwarding a storyline of sustainability, pro-dam actors not only articulate the equivalence between a project and sustainable development but also exclude other elements (related to impacts or costs and benefits, for example) to present the respective projects as technical, rather than political, decisions. In advancing these depoliticising storylines, pro-dam actors conceal alternative interpretations and visions of a project’s sustainability, as well as the interests and identities that underpin pro-dam assertions of its sustainability credentials (Swyngedouw, 2007; 2010; 2011; 2013; Leach et al., 2010; Imrie, 2013; Raco, 2014; Kenis & Lievens, 2014). Pro-dam actors conceal the social and political character of environmental problems and solutions (linked to questions of power, conflict and exclusion) by presenting them as technical pursuits (Swyngedouw, 2007a; 2009b; 2010; Kenis & Lievens, 2014; Kenis & Mathijs, 2014a; Jordhus-Lier, 2015; Wilson & Swyngedouw, 2016). These actors draw a normative divide between legitimate and illegitimate grievances, discrediting opposition networks and deflecting their criticism (Crow-Miller, 2015; Bratman, 2014; Atkins, 2018a). This acts to conceal the antagonistic struggle over the project and the alternative definitions of sustainable development and sustainability and criticism that argues that hydroelectric projects are environmentally and socially damaging (WCD, 2000; Bosshard, 2010; Chen et al., 2015; Mattmann et al., 2016; Latrubresse et al., 2016; Gibson et al., forthcoming) and accompanied by financial risk (Ansar et al. 2014).

Yet, the depoliticising tendency of storylines of sustainability is not resistant to counter-hegemonic resistance and contestation (Li, 2007; Pepermans & Maesele, 2014; Tulloch & Neilson, 2014; Wanner, 2015; Brown, 2016). There exist diverse understandings of

‘sustainability’ – including environmental justice, climate justice, the ‘environmentalism of the poor’ – that contest dominant assertions of sustainability (Bäckstrand & Lövbrand, 2006; 2016; Leach et al., 2010; Martinez-Alier, 2014; Cavanagh & Benjaminsen, 2017; Adams, 2017). These *contested sustainabilities* are forwarded to resist the dominant apolitical and technical conceptualisation of sustainable development, reasserting its political character and providing an alternative vision of environmental politics (Martinez-Alier et al., 2014; Scheidel et al., 2017). This alternative vision involves the reversal of a process of depoliticisation to provide an alternative vision of the dam project in question and the interests underpinning its construction. I term this process *repoliticisation*, understood as the adoption of storylines to reveal the competing interests that underpin environmental projects and articulating these within an alternative vision of society (Kenis & Mathijs 2014a; Pepermans & Maesele, 2014).

In exploring processes of repoliticisation, I analyse how resistance actors and organisations in contemporary Brazil adopt various storylines to challenge the pro-dam storyline of sustainability that is forwarded to legitimise the Belo Monte and São Luiz do Tapajós dams. A process of repoliticisation represents the generation of debate over alternative futures, reactivating the politico-ideological character of hydraulic infrastructure - that had been muted by discourses of depoliticisation. This is evident in the opposition to the Narmada dams in India, engaging in a reconfiguration of the pro-dam storyline of development that accompanied the project to illuminate its equivalence to the destruction of cultural heritage and the maldistribution of costs and benefits (Baviskar, 1995). In doing so, these storylines of resistance do not only contest the project itself but resist and reconfigure the storylines that legitimise and depoliticise their construction. If the resistance actors positioned against the Narmada Valley dams in India articulated alternatives to development, can the presence of an ‘alternative to sustainability’ as a resistance storyline be detected? How is this storyline demonstrated? In what ways do resistance actors reconfigure dominant understandings of the sustainability of the projects studied? It is these questions that I look to answer in subsequent chapters.

Research design and methods

Having set out the theoretical framework and concepts adopted to understand the different ways in which dominant storylines are contested and reconfigured, I now move to set out my methods for applying this framework. In the previous sections, I set out my interest in tracing how resistance actors engage in acts of articulation that contest, critique and reconfigure dominant storylines by articulating new links – be they of an equivalent or differential character – between the Belo Monte and São Luiz do Tapajós schemes and additional elements. In resisting these projects, opposition actors engage in a process of repoliticisation (unveiling the interests behind the projects), ‘scaling up’ (articulating an equivalence between local struggles and wider storylines) and reconfiguration of dominant storylines of sustainability.

I forward the above theoretical framework to explore the contestation between competing (pro-dam and resistance) storylines that surround dam construction in contemporary Brazil. I understand discourse theory as providing a route for the analysis of how rival groups articulate their grievances and demands, draw lines of either inclusion or exclusion and articulate the equivalence or difference between respective, additional elements (Jørgensen and Phillips, 2002). The theoretical approach, outlined above, is used to explore how the resistance actors against the Belo Monte and São Luiz do Tapajós projects have simultaneously challenged and modified the dominant storyline of sustainability forwarded by the pro-dam coalition.

The Pro-Dam and Resistance Coalitions

To explore the contentious nature of the expansion of hydropower in contemporary Brazil, I have selected two cases: the Belo Monte and São Luiz do Tapajós projects. In the subsequent chapters, I analyse how resistance actors have forwarded storylines that repoliticise the planning and construction of the Belo Monte and São Luiz do Tapajós dams and scale up local opposition into national and international storylines. I focus on the role of actors at the local, national and international levels, as well as academics and journalists who have publicly discussed the projects studied.

The opposition to the Belo Monte and São Luiz do Tapajós projects exists at numerous levels - with local, regional, national and international groups all engaged in a process of activism and critique (McCormick, 2009; 2010). This is evident in the important relationship between local populations and national and international environmental organisations (EO) and non-governmental organisations (NGOs) in contemporary environmental networks in Brazil (Hochstetler & Keck, 2007; Barbosa, 2015).³⁶ The collaboration between local networks and national and transnational organisations represents an important tactic of contemporary environmental networks, with different groups working together to achieve shared aims (Keck & Sikkink, 1998; Jasanoff and Martello, 2004; Eden et al., 2006; McCormick, 2007; 2009; 2010; Wapner, 2006; Rootes, 2007; Shrestha & Adhikari, 2011; Saunders, 2013; Downie, 2014).

Both the pro-dam and resistance groupings are fluid and unstructured, characterised by a broad network of heterogeneous actors. I understand these groups as representing *networks of interaction* between separate but connected individuals and organisations that engage in a form of collective action (Diani, 1992; Della Porta & Diani, 1999; Saunders, 2007; 2013). Pro-dam and resistance groups demonstrate a variety of backgrounds, grievances and demands but are joined

³⁶ The aims and remits of civil society organisations present in the resistance coalition are diverse and, as a result, I differentiate between ‘environmental organisations’ (organisations exclusively focused on environmental protection, conservation or policy) and non-governmental organisations (more varied but, in the cases studied, primarily focused on human rights protection).

together by their taking action in support or opposition of the project (Carvalho, 1996; Wolford, 2010; Hochstetler, 2011; Fleury & Almeida, 2013; Bratman, 2014; Klein, 2015). As a result, those contesting hydropower projects must not be understood as a homogenous grouping focused on a sole ideological positioning (Baviskar, 1995: 202-205). In response to this heterogeneity of backgrounds and interests, I follow Hochstetler (2011: 350) in labelling resistance groups ‘coalitions’ to illustrate the diverse and shifting linkages between the state, commercial actors and nongovernmental organisations in the debate over the Belo Monte and São Luiz do Tapajós projects. A focus on coalitions allows for an exploration of the variance with these groups, with the groups representing a dynamic network, rather than a sole ideological positioning. I adopt this definition to allow for a continued focus on respective actors as individual groups engaged in temporary coalitions with others (Saunders, 2013). These groupings involve numerous actors and groups from various backgrounds and with different strategies and expertise.

Whilst Hochstetler (2011: 350) has characterised these groups as the ‘enabling coalition’ or the ‘blocking coalition’, I provide an alternative label. I define these groups as the ‘pro-dam coalition’ (formed of the project’s proponents) and the ‘resistance coalition’ (consisting of opponents to the scheme). I adopt the term ‘resistance’ to describe the coalition opposing the Belo Monte and São Luiz do Tapajós projects to refer to how opposition to these projects are not merely focused on the ‘blocking’ of a particular hydropower project but, instead, locate their opposition to the project as part of a wider effort, linked to notions of environmental protection, human rights and equity.

Analysing these processes of resistance and reconfiguration requires accessible data that effectively captures resistance acts of articulation in relation to the Belo Monte and São Luiz do Tapajós projects. In the subsections that follow I explore the use of interviews, questionnaires and document analysis as a route to capturing the different ways that resistance actors reconfigure – simultaneously challenging and modifying – the pro-dam storyline of sustainability.

Data Collection

This research is based on interviews, questionnaires and document analysis. Between September 2016 and May 2017, I interviewed 21 actors. These actors are drawn from local, national and international organisations, as well academics and journalists who have discussed the Belo Monte and São Luiz do Tapajós dams projects. In addition, interviews were also conducted with high profile representatives of, the Brazilian environment agency, *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (Brazilian Institute of the Environment and Renewable Natural Resources, IBAMA), *Fundação Nacional do Índio* (the National Indian Foundation, FUNAI), the government *Ministério de Minas e Energia* (Ministry of Mines and Energy, MME) and the *Ministério Público Federal* (Federal Public Ministry, MPF). These government organisations represent key actors in the planning, construction and operations of

dams in Brazil. Furthermore, an interview was conducted with a construction manager of *Norte Energia* in December 2016.

Interviewees were identified through internet searches, the detection of key actors within resistance sources collected and snowballing. Interviews were conducted, both in person and over Skype, in the cities of Rio de Janeiro, São Paulo, Brasília, Santarém, Belém and Manaus.

The interviews were conducted to explore the interviewees' understanding of the Belo Monte and São Luiz do Tapajós projects, their role within it and the storyline of sustainability forwarded by pro-dam actors. In adopting interviews as a form of data-collection, I follow Kvale (1996: 105) in understanding interviews as "particularly well suited for studying people's understanding of the meanings in their lived world, describing their experiences and self-understanding and clarifying and elaborating their own perspective on their lived world." Following post-structuralist discourse theory, I understand the language used in these interviews as having a primary role in the making of society. Rather than understanding interviews as focused on uncovering an accurate or neutral description of the projects in question, I understand these interviews as representing how the interviewees, themselves, interprets the topic in question. This interpretation contains an individual evaluation of the project and the storyline of sustainability articulated by the pro-dam coalition. It is in the analysis of these interviews that acts of articulation, logics of equivalence or difference and processes of reconfiguration can be detected. Rather than attempting to detect a wider storyline of resistance, the subsequent analysis focuses on the individual acts of articulation detected in how respective interviewees discussed the project studied.

It is this focus on individual, subjective responses that addresses a limitation of adopting interviews as a method of data collection, namely the risk of the participant being untruthful in their evaluation (Marshall & Rossman, 1995: 110). Within a framework of post-structuralist discourse theory, interviewees, whether they are truthful or not, are telling the interviewer the account and interpretation that they want to be heard and understood (Hansen & Sørensen, 2005). In doing so, they are projecting their identity, grievances and worldview through the interpretation that they provide. Whilst the acts of articulation detected may not be true or accurate, they represent the interviewees own understanding of the Belo Monte and São Luiz do Tapajós projects, their projected impacts and their role within contemporary notions of sustainable development.

Similarly, Marshall and Rossman (1995: 110) have highlighted that some participants in interviews may be unwilling or uncomfortable with discussing issues deemed controversial. However, with the majority of research participants identifying as being *for* or *against* the Belo

Monte and São Luiz do Tapajós projects, I was not introducing any new issues or arguments to them. In a number of interviews, participants did assert that they were unable to discuss a guiding theme (often due to an assumed lack of knowledge). However, following the theoretical framework adopted, I understand this as representing the frontier of the respective discourse, with the elements beyond it remaining unarticulated. For example, if an interviewee was unwilling to discuss issues of corruption, this element would remain unarticulated, absent from the signifying chain and, as a result, remaining in the field of discursivity.

To encourage an evaluative discussion of the Belo Monte and São Luiz do Tapajós projects, I selected semi-structured interviews as the primary technique of data collection. An advantage of semi-structured interviews is their ability to encourage the emergence of previously-unknown information, evaluations or storylines. With all interviewees having knowledge of the projects discussed, they were provided with sufficient opportunity to speak freely (both in the scope of discussion and length of responses). In adopting this interview technique, I restricted my own involvement in the exchange, instead encouraging the interviewee to reflect on the projects in question and direct our exchange in their chosen direction. I created this distance so as not to influence the interviewee's own interpretation of the projects discussed (Cruickshank, 2012). As a result, data drawn from interviews provided insights into how individual interviewees interpret both the respective projects and their opposition to them. The semi-structured nature of interviews provided an extensive amount of information and interpretation, with the projects serving as a central starting-point for wider discussions linked to the hydropower industry in Brazil, the protection of the Amazon rainforest and contemporary Brazilian politics.

These semi-structured interviews were organised around a topic guide, consisting of a list of themes, designed to lead the conversation in a standardised manner but allowing sufficient opportunity for interviewees to provide their own interpretations of the projects and link the projects to additional processes and events and for myself to ask questions of clarification. The formulation of this topic guide and the conversational element of interviews required me to gather and explore a large amount of additional data (newspaper articles, government reports, scientific publications) before the interviewing process began. This data allowed for the generation of a number of key themes that I wished to be discussed in interviews, designed to encourage the interviewee's reflection on a number of key events in the construction of the Belo Monte and São Luiz do Tapajós projects (such as the 2016 cancellation of the latter) and to respond to a number of arguments provided by the dams' proponents seeking to legitimise the schemes (such as those related to sustainability). In addition, I asked a number of secondary questions, linked to the need for clarification of previous points, the introduction of alternative viewpoints or to encourage the further discussion of previous arguments. All interviews were recorded via a mixture of both audio-recordings and field notes. A field diary was kept throughout the period of fieldwork.

In addition to interviews, I have collected data from questionnaires completed by 14 respondents. These questionnaires were used if circumstances would not allow for myself and the respondent to meet in person or over the phone. These questionnaires took a more structured nature, consisting of a set of ten questions. I made efforts to ensure that all questions were suitably open and unrestricted to allow respondents to develop and provide their own interpretation of the issue, event or process discussed. For example, questions requested respondents to detail their own understanding of the projects or to respond to dominant pro-dam storylines. Example questions from these questionnaires can be found in the appendix. The material drawn from these questionnaires focused on the respondent's own understanding of the projects studied, as well as the dominant storyline of sustainability forwarded by pro-dam actors. Questions posed asked respondents to reflect upon the projects' location within contemporary sustainable development agendas as well as the process in which the Belo Monte and São Luiz do Tapajós projects were planned. Although, due to the structured nature of these questionnaires, the ability of the respondent to evaluate and reflect is hindered – with a number of respondents only providing short, one-sentence answers to the questions posed; the responses within the questionnaires provide an important degree of additional data for analysis. This is with reference to detecting the forwarding of certain storylines that engage in acts of repoliticisation and scaling up, with respondents locating their opposition to the projects studied at the local, national and international levels. As a result, these questionnaires are analysed for acts of articulation – be they based on a logic of equivalence or difference – that represent a reconfigures the dominant pro-dam storyline of sustainability.

Data taken from interviews and questionnaires has been supplemented by the collection and analysis of over 300 primary documents. These documents have been taken from numerous sources disseminated by various organisations and groups. Primary sources were selected through targeted online searches, using a series of key search terms. Sources discussed include governmental sources, international civil society groups, domestic arms of international non-governmental organisations, national civil society, and local campaigning groups. The collected sources demonstrate a variety of acts of articulation and are drawn from the local, national and international level – further demonstrating the heterogeneity of the resistance coalition studied.

A number of these interviews and questionnaires have been translated by a third party and, are not analysed for the discourse present within them. Rather than the analysis of the lexical choice of these materials, I analyse how these materials frame the Belo Monte and São Luiz do Tapajós projects and how these materials provide data and case studies that challenge the pro-dam storyline of sustainability.

I understand these primary materials as ‘communicative devices’, which are written and distributed to a specific, targeted audience and for a particular purpose (Flick, 2009). They present a partial and specific account of the projects researched. For example, a published report by WWF Brasil will likely report on the environmental impacts of the project, due to the organisation’s focus on environmental protection, whilst a news article by *Movimento dos Atingidos por Barragens* (Movement of Dam-Affected People, MAB) would, instead, focus on the social impacts. This contrast is not representative of a denial of additional impacts unaddressed within the respective sources. Instead, these sources present a partial reading of reality, dependent upon the identity and remit of the respective grouping. It is the absence of these additional elements that represent the respective group’s failure to articulate emergent issues into the signifying chain present. Rather than representing a limitation of the source material, it demonstrates how some elements (such as those of local socio-economic impacts) remain unarticulated in the storylines advanced by some groups, whilst present in those of others.

Data analysis

To conduct this analysis, I will draw on the concepts of antagonism and logics of difference and equivalence, found in discourse theory, in the analysis of semi-structured interviews, structured questionnaires and a range of resistance materials. Within this process, I will analyse the tactics and storylines presented by the resistance coalition in explaining the respective projects and their opposition to them. I characterise these tactics as constituting a counter-hegemonic storyline that aims to reconfigure the storyline of sustainability that is forwarded to legitimise the Belo Monte and São Luiz do Tapajós schemes.

After the process of data-collection and the transcription of interviews, I coded the data collected, drawing the links between storylines advanced by different actors and developing an understanding of the broad categories present within the source material. This data primarily came from transcripts of the 21 interviews and participants answers in questionnaires, with the respondent’s interpretation of events providing evidence of initial themes detected. If interpretations are similar, they are categorised under particular headings that I have labelled as ‘primary categories’. These initial categories were broad. For example, preliminary categories included ‘Local Experience’, ‘Brazilian Politics’, ‘Traditional Communities’. Following the theoretical framework defined above, I understand the entrance of these initial categories as representing an act of articulation, in which the planning and construction of the Belo Monte and São Luiz do Tapajós dams are linked to additional elements in a wider signifying chain (or storyline). From these categories, I was able to draw out broad interpretations to begin to address my first research question:

What storylines have opposition actors forwarded to reconfigure the dominant storyline

of sustainability surrounding the Belo Monte and São Luiz do Tapajós hydroelectric projects?

I subsequently used these initial categories to code the supporting primary materials, detecting the presence of these acts of articulation in additional materials. During this process, I also sought to identify and code additional broad categories that may shed more light on the data contained in questionnaires and interview transcripts. However, although a number of additional concepts were found (such as ‘Celebrity Activism’), these were not felt to be sufficiently broad to include in the preliminary analysis.

At this stage, I returned to the audio files of the respective interviews. I did this to reacquaint myself with the context of the initial exchanges, as well as to ensure that all non-verbal cues (such as laughter) were included in respective transcripts. In doing so, I hoped to ensure a continued connection to the emotion and emphasis present in the interviews. As Kvale (1996: 165) has argued, the process of transcription can disrupt this connection, with transcripts becoming “decontextualised conversations, they are abstractions, as topographical maps are abstractions from the original landscape from which they are derived.” My continued engagement with the source materials was designed to ensure a reversal of this process of abstraction.

Following this stage, I engaged in a second act of coding of all materials now using the theoretical concepts outlined in this chapter. Within this process, I coded any act of discourse that suggested an appeal to equivalence, difference or antagonism. It was through this two-stage process that I was able to identify not only primary categories within opposition materials but also the key concepts perceptible within them. By coding these separately, I was able to explore both the points of crossover between the primary categories and key concepts and also where certain storylines did not represent the processes of signification presented within the theoretical framework.

With primary categories and theoretical concepts identified within the sources collected, I now moved onto the second stage of analysis - involving the collation of sources demonstrating primary categories and their analysis to explore the signifiers within them. This allowed me to delineate certain acts of articulation from others, demonstrating the internal nuances of the primary categories initially detected. It was at this stage, that I identified the signs discussed in the empirical chapters of this work. These include, ‘Deforestation’, ‘Methane Emissions’, ‘Corruption’, ‘[the role of] President Dilma Rousseff’ and ‘Threats to Indigenous Communities’. These subsidiary storylines were subsequently analysed to understand the use of signifying chains and the entrance of questions of identity and antagonism into the analysis of these materials. These are understood to represent specific logics present in resistance storylines, with these signifiers possessing conceptual worth in light of the theoretical framework adopted. For example, a

storyline incorporating a signifier of socio-economic impacts is understood as engaged in an act of articulation, creating an equivalential chain between the projects studied, the signifier ('socio-economic impacts') and wider storylines.

The result of this process of analysis was the identification of primary categories, prominent signifiers and their theoretical content in relation to the adopted theoretical framework. These materials enable me to explore the sub-questions:

How does the reconfiguration of the storyline of sustainability represent a wider process of repoliticisation of the projects studied?

During this process, I continued to collect primary resistance materials. I did so to ensure that I traced the trajectory of storylines detected up until the first anniversary of the archival of the São Luiz do Tapajós project (cancelled in August 2016). To do so, the last act of data analysis involved the coding of these materials related to the aforementioned primary categories, prominent signifiers and conceptual content. This supplementary act of analysis allowed me to explore the trajectories, continuity and change of the primary categories and prominent signifiers detected. I outline these trajectories in Chapter 9, addressing the final sub-question of this research.

Has the cancellation of the São Luiz do Tapajós project brought a continuity or a change in the opposition efforts to reconfigure the storyline of sustainability, in relation to hydropower projects in the Brazilian Amazon?

Ethical considerations

I have clear ethical responsibilities to participants in this work. This was particularly the case working with environmental organisations in Brazil, who have faced a number of increasing threats in recent years, as detailed in subsequent chapters. With accusations of corporate espionage against environmental organisations and the deaths of environmental and human rights activists often discussed in both interviews and questionnaires, it was important that I ensured that my ethical responsibilities to participants were fulfilled.

All research participants (in both interviews and questionnaires) were briefed on the topic researched and the purpose of their involvement. This information was provided either via an initial email, sent before the first meeting or in the opening conversation. In providing an explanation of the research project and a participant's involvement within it, I ensured that participants were able to provide their full consent to their involvement in this research. Consent was provided by the completion of a consent form - a copy of which can be found in the appendix. All interviews were recorded with the consent of the participant. In the case of a number of

participants, the conversation continued after the ending of recording. Although many research participants outlined their consent to be named in this research, I have made the decision to anonymise all interview recordings, transcripts and quotes used in subsequent chapters to ensure their confidentiality.

Conclusion

In this chapter, I have presented and developed a theoretical and methodological approach to studying storylines forwarded by resistance actors and organisations in opposition to the Belo Monte and São Luiz do Tapajós projects. Drawing from Gramscian theories of *trasformismo*, I have argued that the hydraulic mission should be understood as representing a form of ideological hegemony, in which pro-dam actors co-opt and absorb additional demands and grievances to ensure the dominance of the hydraulic mission. I have provided the storyline of sustainability as an example of this process of absorption, with the storyline of sustainability representing a process of depoliticisation, in which actors and demands are bestowed with a legitimacy and others deemed illegitimate.

Building on this, I argue that opposition groups and networks reconfigure the dominant pro-dam storyline of sustainability through acts of articulation that position the Belo Monte and São Luiz do Tapajós in relation to signs that are absent from pro-dam storylines. Resistance actors articulate the equivalence and difference between the projects studied and wider storylines. To understand these resistance storylines, I have introduced the concepts of repoliticisation, understood as representing the rendering visible of the political character of a project, its planning and its impacts and scaling up, in which a localised struggle becomes rearticulated as part of a wider storyline. I have argued that the post-structuralist discourse theory provided by Laclau and Mouffe (1985) offers a conceptual route to understanding these processes and how a resistance coalition can engage in a counter-hegemonic articulation against dominant understandings of hydropower. Lastly, I have delineated my research design, presenting how this theoretical framework has influenced my research methods and detailing how data was collected and analysed.

The pro-dam and resistance coalitions that contest the Belo Monte and São Luiz do Tapajós projects are heterogeneous networks, formed of numerous actors. The interplay between these two groups has a long history, with the debates over the Belo Monte extending over thirty years. Within the cases explored, numerous actors and groups articulate different demands and grievances, resulting in both a continuity and change of both pro-dam and resistance storylines. It is this historical context of the Belo Monte and São Luiz do Tapajós projects that I turn to in the next chapter.

Chapter 4

Belo Monte, São Luiz do Tapajós and storylines of sustainability

In this chapter, I consider the context of this thesis by locating the Belo Monte and São Luiz do Tapajós hydropower projects in contemporary Brazilian energy politics and introducing the role of contestation within the planning and construction of these projects. I characterise the projects studied as representative of a contest between two distinct, heterogeneous groups that I term the ‘pro-dam’ and the ‘resistance’ coalitions. These groupings involve numerous actors and groups from various backgrounds and with different strategies and expertise. In this chapter, I profile the diverse sets of actors that support the construction of a dam or contest it. I explore the interplay between these coalitions and introduce the pro-dam storyline of sustainability forwarded to legitimise the construction of hydroelectric dams in Brazil and delegitimise resistance networks.

This chapter is divided into three sections. First, I discuss the significance of hydropower in contemporary Brazilian energy politics and introduce the Belo Monte and São Luiz do Tapajós projects. Second, I profile the numerous actors involved in the pro-dam and resistance coalitions. Finally, I introduce the role of a storyline of sustainability in historical resistance movements against hydropower projects in Brazil and its modern incarnation - as a storyline of legitimacy forwarded by pro-dam actors.

The hydroelectric frontier

Brazil has the greatest reserves of surface water in the world – totalling approximately 19.4 percent of the planet’s total surface water resources (da Silva Soito & Freitas, 2011) and is home to monumental river basins, including the Araguaia-Tocantins (with a drainage basin covering 967,059 square kilometres) and large parts of the Amazon (7,500,000 km²) and the Paraguai (1,095,000 km²) rivers. Since the 1930’s, the state-led exploitation of waterscapes – lakes, groundwater, rivers and marine space – has formed an important part of Brazilian national and regional development plans (Ioris, 2007). The construction of dams – to provide hydropower, water for irrigation or surfaces for navigation - has provided a central form of infrastructure in this harnessing of water resources.

This wealth in water resources has allowed Brazil to develop an energy matrix heavily dependent on hydropower generation. The net installed capacity of hydropower in Brazil in 2014 was estimated at 89 gigawatts (GW) (IEA, 2016), with the energy generated channeled, via a national grid of transmission, towards the population centres of Rio de Janeiro and São Paulo in the south

of the country. In terms of usable hydroelectric capacity, Brazil has the third-largest potential in the world, behind only Russia and China (Sennes & Narciso, 2009). In 2016, 64.5 percent of national installed energy capacity was taken from hydroelectric dams (S100). Although the Brazilian energy sector is diversifying this matrix, with wind and solar energy responsible for 39.6 percent of the annual expansion of installed capacity in 2015, the expansion of hydropower has continued (S199).

Whilst the dams built in the past were geographically spread across the Brazilian state, more-recent dam projects have been concentrated in the Brazilian Legal Amazon Region. A focus on *Amazônia* is no surprise, with the basin draining 6.8 million km² of water and accounting for 18 percent of total global river discharge (Meybeck & Ragu, 1996). The *Agência Nacional de Energia Elétrica* (ANEEL), the state-regulator of the Brazilian energy sector, has projected that the Amazon basin has a generation potential of 106 GW (higher than Brazil's total installed capacity in 2008 of 102 GW) (S23). This represents 64-66 percent of Brazil's total hydroelectric potential (S293).³⁷

With the hydroelectric potential of other river basins of the country nearly exhausted by historic management practices and infrastructure, the Amazon basin has become a “new hydroelectric frontier” in Brazilian energy policy, resulting in the region becoming near-synonymous with questions of hydroelectric energy generation in Brazil for a number of decades (da Silva Soito & Freitas, 2011: 3165; Lees et al., 2016). Between 1975 and 2013, 13 large dams were built by successive governments on tributaries to the Amazon river, including Tucuruí and Balbina (built under the Brazilian military junta), Manso and Samuel (completed in the late 1980s) and Santo Antônio and Jirau (completed in 2011 and 2013 respectively.)

A driver of this turn to the Amazon as a hydroelectric frontier was an energy crisis in Brazil in 2001 and 2002 that illustrated the vulnerability of a Brazilian energy sector reliant upon hydropower. In this period, a prolonged period of drought created energy shortages resulted in nine months of electricity rationing (between June 2001 and March 2002) and saw a reduction of 16.3 percent of average energy use (Carvalho, 2006). The years succeeding 2002 saw a renewed impetus for the transformation of Brazilian energy policy, a search for additional energy resources and an increased interest in large-scale energy generation projects (Carvalho, 2006). Governmental energy reforms provided incentives for expanding energy capacity, particularly involving hydropower and assurances were made that Brazilian society would not face future energy shortages. The *Plano Decenal de Expansão de Energia 2033* (Decennial Energy

³⁷ In comparison, the southern region of Brazil is home to 21 percent of the total hydroelectric potential of Brazil, followed by the south-east (8 percent), the north-east (3-4 percent) and the central regions (2-3 percent).

Expansion Plan) planned for an expansion of hydroelectric generation by more than 28 GW between 2014 and 2023 (S99). As of 2016, 79 dams were planned for the lower and middle parts of the Amazon basin in Brazil, with 16 of these having a planned installed capacity of over 30 MW (Lees et al., 2016). Both the Belo Monte and São Luiz do Tapajós projects are located on tributaries to the Amazon River, with the former currently under construction on the *Volta Grande* ('Great Bend') of the Xingu river and latter project planned for the Tapajós river. Government reports highlight that both the Tapajós and the Xingu rivers are key centres of the hydroelectric potential of the Amazon basin (S198).

The planning and construction of the Belo Monte dam has a long history of contestation. The original plans for the project began in 1975, during the years of Brazil's military dictatorship (1964-1985). These plans, commissioned by the regional company responsible for energy supply in the north of Brazil, *Centrais Elétricas do Norte do Brasil S.A* (Eletronorte) were completed in 1979. The project outlined within these plans included five dams on the Xingu river and one on the nearby Iriri river, that were expected to generate 19 GW of energy and flood over 18,000 km² of the Xingu river basin (S90). These respective dams included the modern-day Belo Monte project (formed of two large dams, named Kararaô and Babaquara). The project was formally presented in the 1987 *Plano Nacional de Expansão Energética* (S197), with, the primary-dam in the hydroelectric complex, Kararaô becoming an important site of contestation in Brazilian environmental politics. However, the projects resulted in extensive opposition from local communities and national and international environmental organisations.

A landmark event of this resistance to the Kararaô project can be found in the 1989 Altamira Gathering. This meeting, organised by the *Coordenação das Organizações Indígenas da Amazônia Brasileira* (Coordination of the Indigenous Organizations of the Brazilian Amazon, COIAB), provided a forum in which local resistance actors, most notably from the indigenous Kayapó community, engaged with numerous national and international organisations, 200 members of the global press and over 100 additional observers (Park, 2002), including the musician, Sting, and, the entrepreneur, Anita Roddick (S154). These efforts by the organisers of the meeting and those present resulted in the resistance coalition receiving extensive international coverage. In stimulating this international audience, the 1989 Altamira Gathering provided a space for the grievances and demands of indigenous communities to be heard at the international level (Turner, 1993; Zanotti, 2015; 2016).

The Altamira Gathering was successful in deterring international lenders from providing funding to the Kararaô project (Hochstetler, 2011). Keck and Sikkink (1998) describe this as a 'boomerang strategy', in which a local community is able to change national government policy by influencing institutions at the international stage. At the time, the World Bank was the most prominent funder

of hydropower projects internationally (Goldman, 2004) and was expected to provide funding to Kararaô (Chernela, 1988). In response to the 1989 opposition, the World Bank withdrew its potential support. The *Departamento Nacional de Águas e Energia Elétrica* (Department of Waters and Electric Energy, DNAEE) later rejected the project, removing it from national energy plans.

The project - now renamed Belo Monte - reemerged in 1998, when redeveloped versions of the Kararaô and Babaquara dams (now renamed Belo Monte and Altamira respectively) were included in that year's *Plano Decenal de Expansão de Energia 1998-2008*. The surface area of the dam's reservoir had been reduced to 440 km² by moving the project upstream (S90). In the current incarnation of the project, Belo Monte is a 'run-of-the-river' (ROR) project, designed to generate hydroelectricity without relying upon a large reservoir.³⁸ The turbines are powered by water diverted from the *Volta Grande* ('Big Bend') of the Xingu river, resulting in the 100 kilometre stretch of water losing 80 percent of its total flow and a reservoir of 516 km². Although competing projections differ, it is estimated that the plant will displace 25,000 people in the city of Altamira, as well as 18,000 members of indigenous and riverside populations (commonly known as *ribeirinhos*) (S298). As of April 2018, Norte Energia's website asserts that Belo Monte is generating its total capacity of 11,233 MW and is able to serve up to 60 million people in 17 of Brazil's 26 federal states (S252).

The São Luiz do Tapajós dam is part of a proposed complex of hydroelectric dams located on the Tapajós and Jamanxim rivers. The proposed complex, including the Jatobá, Cachoeira dos Patos, Jamanxim and Cachoeira do Cai dams, was planned to generate 12,000 megawatts (MW) of energy. The São Luiz do Tapajós complex was planned for the Tapajós river, near the village of Pimental. It was expected to flood 722 km² of forest to create its reservoir and have a total installed capacity of 8,040 MW. If built, it would have been the second largest dam in Brazil (after Belo Monte).³⁹ It is one of 43 large dam complexes planned or under construction in the Tapajós river basin, including the Teles Pires project (involving the São Manoel, Teles Pires, Sinop and Colíder dams). In this research, I focus on the São Luiz do Tapajós project only. This is due to the contestation that surrounds it - with the project being described "as the next battle over saving the Amazon" (Harvey, 2016). The project was removed from national energy plans in August 2016, when IBAMA refused to provide the project with its necessary environmental license.

Full contextual details for both plants can be found in the table and map overleaf. Respective

³⁸ The Belo Monte project is a complex of three dams, with two additional dams named Pimental and Bela Vista. These supplementary projects supply water to the Dos Canais Reservoir and the complex's main power station at Belo Monte.

³⁹ The Itaipu project (completed in 1984 and located on the Paraná River at the border between Brazil and Paraguay) is not included in this statement, due to it being a joint-venture between the Brazilian and Paraguayan governments.

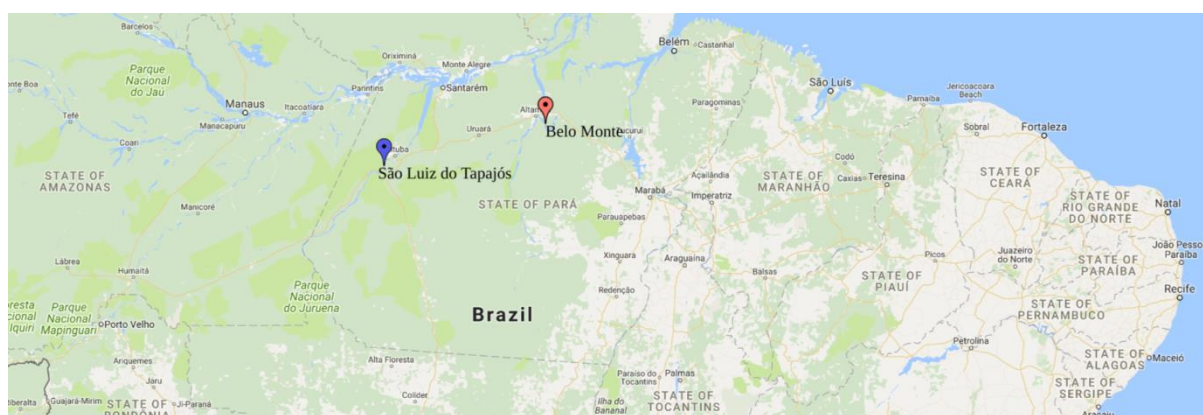
chronologies of their planning and construction are provided in the appendix.

Table 1: Table of characteristics of Belo Monte and São Luiz do Tapajós projects

	Belo Monte	São Luiz do Tapajós
Total number of dams in complex	3	5
State	Pará, North-Eastern Brazil	Pará, North-Eastern Brazil
Basin	Xingu	Tapajós
River[s]	Xingu	Tapajós, Jamanxim
Electrical Capacity	11,233 MW	8,040 MW
Area Flooded	668 km ²	729 km ²
Affected People (Official Estimates)	20,000	977
Predicted Cost (US\$)	19.0 million+	9.2 billion
Operational Status⁴⁰	Operational ⁴¹	Archived ⁴²
Owner	Norte Energia, S.A.	Eletrobrás

Figure 2: Locations of Belo Monte and São Luiz do Tapajós projects

[Author’s approximation]



The development and implementation of energy policy in Brazil has historically been dominated by the long-term contestation between the pro-dam interests that lobby for large-scale energy projects and an opposition movement that highlights to a project’s environmental and social impacts (Carvalho, 2006; Hochstetler, 2011). The contests between these two groupings are

⁴⁰ As of April 2018.

⁴¹ Estimated completion in 2019.

⁴² A term used to describe the removal of the project from the Brazilian environmental licensing process.

evident in a number of hydropower projects in contemporary Brazil. Previous resistance struggles include those against the respective Murta and Eliézer Batista dams in Minas Gerais, the Barra Grande project on the border of Rio Grande do Sul and Santa Catarina and the respective Dardanelos and Manso projects in Mato Grosso. Local groups, indigenous communities and international organisations have previously mobilised against the Jirau and Santo Antonio Dams on the Madeira River, Rondônia between 2006 and 2016, when the project was completed. These groups argued that the large dam projects had extensive social and environmental impacts and that local communities had not been adequately consulted in the planning process (S171; S285). An opposition activist against these projects, Nilce de Souza Magalhães, known as Nicinha, was found murdered in January 2016. Nicinha's body, missing for five months, was discovered in the project's reservoir, with her hands and feet bound by rope and weighted underwater by a rock (Morais, 2016).

I understand this opposition against dams in Brazil as the occurrence of moments of contestation, in which pro-dam and resistance coalitions forward storylines that engage in a process of interplay and competition. These respective storylines to either endow the respective project with a degree of legitimacy or to deny such a quality. As a result, the project becomes located within wider contexts that provide it with a symbolism - be it linked to notions of economic development or environmental impacts. It is within this context that, as Hochstetler and Keck (2007: 45-46) have stated, "individual licensing decisions often become crucibles for the airing of giant social conflicts that really should be settled in other ways." I will now introduce the actors identified as present within these coalitions below.

The pro-dam coalition

The construction of the Belo Monte project was led by *Consórcio Norte Energia*, a group formed by several public and private interests. Court judgements have shed light on the corporate structure of this consortium, which includes pension funds, run by *Petrobras* and the Federal Savings Foundation respectively; the national energy company *Eletrobrás*; regional energy producers (*CHESF*, *Eletronorte*; and *Neoenergia S.A.*); national financial institutions (*Banco do Brasil* and, its subsidiary, *BB Banco de Investimento SA*); and private companies (the mining company *Vale SA*) (S294).⁴³

The São Luiz do Tapajós project was managed by a consortium named *Grupo de Estudos Tapajós*, tasked with completing the social and environmental impact assessments of the project for the environmental licensing process. The organisation's website lists its members as *Eletrobras* and *Eletronorte*, the electricity companies, *Cemig*, *Copel* and *Neoenergia*, the international energy

⁴³ Vale dropped its share in Norte Energia in 2015.

companies, *Électricité de France S.A.* (Electricity of France, EDF), *Engie* (previously GDF Suez) and *Endesa* and the construction company, *Camargo Corrêa*.

However, the projects studied have been supported by a broad pro-dam coalition. I will now outline the key actors within this coalition, their interests and their roles within the contemporary processes of dam construction in Brazil.

The Partido dos Trabalhadores

Both Belo Monte and the São Luiz do Tapajós represent central projects within the developmentalist policy agenda pursued by the *Partido dos Trabalhadores* (Workers' Party, PT) governments of Presidents Luiz Inácio Lula da Silva (herein Lula) (2003-2011) and Dilma Rousseff (herein Dilma) (2011-2016).⁴⁴ Both projects are present within the flagship policy package of this government. Within this development model, the policies of Lula and Dilma emphasised the expansion of the transportation, agribusiness and energy sectors (Fausto, 2014). These policies provided an impetus for infrastructure expansion across Brazil, creating both jobs and a framework to increase economic growth. Under PAC-1, 6,377 kilometres of highway and 909 km of railways were constructed or improved, over 5,000 housing and sanitation projects were built, twelve new gas platforms entered operations and 3,776km of gas pipelines were constructed in this period (Burrier, 2014). Belo Monte was listed within the 2007 *Programa de Aceleração do Crescimento* (Growth Acceleration Plan, PAC). Similarly, a number of hydropower projects on the Tapajós river were present within the PAC's successor plan, the 2010 *Programa de Aceleração do Crescimento II* (PAC-2).

With hydroelectric projects prominent in the development policies of the PT, their planning and construction became a central part of the government's political agenda. When Lula came into office in 2003, the PT administration grew concerned that 35 hydroelectric plants had stalled during the licensing process, often due to opposition from local communities. Lula's solution was the creation of a *Sala de Situação* (Situation Room) in which members of different governmental and quasi-governmental departments⁴⁵ could meet with technical staff from IBAMA and MPF to develop strategies to allow the construction of these projects (Hochstetler, 2017). Dilma Rousseff,

⁴⁴ The names of these politicians are regularly shortened in Brazilian political discourse, with the first names of these politicians becoming synonymous with their governments and policies. With the majority of resistance actors and materials describing these former-Presidents on a first-name basis, I adopt this convention throughout the following chapters.

⁴⁵ Key government agencies within this group include the MME, the *Empresa de Pesquisa Energética* (Energy Research Enterprise, EPE) and the *Agência Nacional de Energia Elétrica* (National Agency for Electrical Energy, ANEEL), the national energy utilities company, *Centrais Elétricas Brasileiras S.A.* (Eletrobras) and the regional utilities, *Centrais Elétricas do Norte do Brasil S/A* (Eletronorte) and *Companhia Hidro Elétrica do São Francisco* (Chesf).

the then Minister of Mines and Energy (2003-2005), is understood to be a central participant in this process (Hall & Branford, 2012). The role of the political agency of both Lula and Dilma in this strategy of dam-construction - and their positioning within opposition storylines - will be discussed more fully in Chapter 5.

BNDES

The *Banco Nacional de Desenvolvimento e Social* (National Bank for Economic and Social Development, BNDES) had a key role in the financing of the projects of the PT's Growth Acceleration Programmes. Labelled by Casanova & Kassum (2014: 35) as the "visible hand of the state", the size of BNDES' investment portfolio doubled during the Lula administration, with the institution assuming a central position in the PT's ambitious economic policy. Through its investment arm, BNDESPar, BNDES has invested in a number of economic activities (Casanova & Kassum, 2014). Between 2002 and 2011, the institution issued 2,115 short loans, ranging from less than R\$1 million to over R\$ 1 billion (Montero, 2014).

Energy-related spending was a particularly large area of BNDES' loan portfolio in the years between 2002 and 2011, with six of the institute's eight largest loans in this period made to energy generation or distribution projects (Hochstetler & Montero, 2013). In 2012, 12 percent of total BNDES investment went to the electrical sector, totalling BR\$18.9 billion (S125). Total BNDES investment in the Belo Monte project equalled BR\$28.9 billion in 2012 (S37). The organisation was a key funder of the Madeira river dams (completed in 2011 and 2013), providing a reported R\$16.5 billion to the projects. Furthermore, in 2017, BNDES provided R\$2.5 billion to fund the construction of the transmission lines that will carry the energy generated by the Belo Monte project to the urban centres of southern Brazil (S38). With São Luiz do Tapajós having never emerged from its planning stage, the extent of BNDES' (real or potential) financial support for the scheme remains unknown.

The main source of BNDES funds is public, with it reporting that 52 percent of its funds come from the National Treasury in 2012 (S124). BNDES financing is supplemented by investment from public pension funds. In what Datz (2013) has labelled 'pension fund developmentalism', national pension funds have invested heavily in infrastructure projects, becoming key levers in the provision of long-term investment for such schemes.⁴⁶ The pension funds of both the *Petrobrás* oil company and the *Caixa Econômica Federal* (National Savings Bank), both state-owned enterprises, have invested in the Belo Monte project.

⁴⁶ Recent investments by pension funds have included in the Rio de Janeiro subway system and the Guarulhos airport in São Paulo (Datz, 2013)

Commercial groups

Despite being primarily state-led and state-funded, the pro-dam coalition also includes national Brazilian construction companies, including Andrade Gutierrez, Camargo Corrêa, Odebrecht, Queiroz Galvão and OAS. These companies are understood to have held a degree of political power in contemporary Brazil, due to their close relationship with numerous political parties and a central role in both PAC and PAC-2 (Belisário, 2014).

The role of the construction companies is evident in the consortiums responsible for the construction of both Belo Monte and São Luiz do Tapajós. The Belo Monte project is being built by the *Consórcio Construtor Belo Monte* (Construction Consortium [of] Belo Monte, CCBM). Eleven companies are involved in the consortium's contracts for Belo Monte, including Andrade Gutierrez, Odebrecht, OAS, and Queiroz Galvão, as well as smaller construction companies Contern, Galvão Engenharia, Serveng-Civilsan, Cetenco and J. Malucelli (Vieira, 2016).

The initial planning of the São Luiz do Tapajós project was conducted by a consortium named Diálogo Tapajós, consisting of *Eletrobras*, *Eletronorte*, *Neoenergia*, Camargo Corrêa, Endesa Brasil, Cemig and Copel, as well as the multinational companies Engie and Électricité de France S.A. (EDF). However, due to the project's cancellation, the extent of involvement of the Brazilian construction sector remained limited.

Local support

In the case of Belo Monte, these national actors are joined by a number of local groups that have voiced support for the project. *O Fórum Regional de Desenvolvimento Econômico e Socioambiental da Transamazônica e Xingu* (The Regional Forum for Economic and Socio-Environmental Development of the Transamazônica and Xingu, FORT Xingu) represents an umbrella group of 178 entities that have aligned in support of the Belo Monte project (Fleury & Almeida, (2013). Similarly, other local groups, such as *Fundação Viver, Produzir e Preservar* (Live, Produce and Preserve Foundation, FVPP), have voiced support for the project.

Yet, this support for the project is not assured, as demonstrated by the criticism of Belo Monte by FORT Xingu in 2011 and 2012, with the organisation condemning the chaotic construction of Belo Monte and its effect on the local area and called for more intervention in the scheme, with the organisation paying for a number of billboards in Altamira, the nearest urban centre to the project's construction site, to publicise such criticism (Fleury & Almeida, 2013). Nevertheless, although the group criticised the schemes and its consequences, it has maintained a commitment to the importance of its construction for the local economy and the further development of the region around Altamira (Fleury & Almeida, 2013).

The resistance coalition

Lining up against the pro-dam lobby is a broad coalition, representing a number of interests (Fleury & Almeida, 2013; Bratman, 2014). I will profile these actors below.

Indigenous communities

At the forefront of the resistance coalition have been a number of indigenous communities. This is with particular reference to the Kayapó (Belo Monte) and Munduruku (São Luiz do Tapajós) communities, who have often been presented in international coverage as key actors in these struggles (National Geographic, 2011; Watts, 2014; McDiarmid, 2016). However, these are not the only indigenous communities affected by such projects. The Belo Monte project is also projected to impact the territories of the Arara, Juruna, Araweté, Xikrin, Asurini and Parakanã communities. Before being removed from national energy plans, the São Luiz do Tapajós project was projected to impact the Apiaká de Pimental, Akaybãe, Boca do Igarapé Pacu, Remédio, Sai Cinza and São Martinho communities.

These communities have engaged in opposition to these schemes in a number of ways, including the occupation of construction sites and the blockading of roads, open protests and national and international lobbying for support. Furthermore, respective communities demonstrate a degree of solidarity with those resisting dams being constructed elsewhere in the region, as demonstrated by the 2015 *Caravana de Resistência*, in which the Munduruku, Apiaká, Kayabi and Rikbaktsa communities united to protest the São Manoel dam on the Teles Pires river, a tributary to the Tapajós.

The resistance storylines, both forwarded by indigenous communities and by organisations and actors discussing the impacts upon these groups, are often focused on the protection of territory, the right of indigenous communities to participation, consultation and recognition in the planning process for these projects and the protection of the cultural characteristics of respective groups. These storylines are analysed in Chapter 7.

Local groups

Although it is often the indigenous community that is most-visible in international reporting of the resistance against the Belo Monte and São Luiz do Tapajós projects, there are a number of additional social groups that are represented in the resistance coalition. These include small-scale farmers, urban dwellers, *ribeirinhos* (riverine populations) and *garimpeiros* (artisanal miners).

One of the key actors in the contemporary resistance coalition against Belo Monte is the *Movimento Xingu Vivo para Sempre* (Xingu Alive Forever Movement, MXVS). Created in 2008, *Xingu Vivo* - as it is commonly described - emerged from the splintering of the activist group, the

Movimento pelo Desenvolvimento da Transamazônica e Xingu (Movement for the Development of Transamazon and Xingu, MDTX). MDTX was historically opposed to the Kararaô dam, organising the local *ribeirinho* population against the project. A leader of MDTX, Ademir ‘Dema’ Alfeu Federicci was killed in 2001, in an attack that is thought to have been motivated by his stance against hydropower in the region (Bratman, 2014). However, in 2008, members of MDTX publicly declared that they would not oppose Belo Monte in exchange for government commitments to pave stretches of the Transamazon highway in the region (Bratman, 2014). This resulted in the fragmentation of the local opposition network, with members divided in opposition and support for the project.⁴⁷

Following the withdrawal of MDTX from opposition, *Xingu Vivo*, founded in 2008, has become the main grassroots movement against Belo Monte, providing a focal point for various campaigning groups to gather and articulate a shared message. The organisation employs both direct and indirect action to oppose the dam. For example, in 2012, *Xingu Vivo*, working with Amazon Watch, organised a three-day occupation and protest at Belo Monte’s construction site, welcoming members of both local indigenous communities and other groups (Bratman, 2014). Members of the community, joined by indigenous communities have also occupied government offices (S24; S230; S233; S237). These efforts have delayed the Belo Monte project, with a representative of Norte Energia explaining that 400 days of construction had been delayed by direct opposition action by local actors between the start of its construction and late 2016 (I19).

Further to this, the organisation’s website (www.xinguvivo.org.br) provides a number of documents, disseminated among the local community, describing the project’s impacts, as well as reporting on opposition activity.

A similar organisation, *Movimento Tapajós Vivo* (Tapajós Alive Movement, MTV) was established in opposition to the São Luiz do Tapajós in 2010.⁴⁸ Similarly to *Xingu Vivo*, MTV provides a formal point of resistance for the numerous actors and groups opposing the Tapajós project, organising events and disseminating news of the project’s planning and contestation.

Within these groups, numerous interests and identities (such as women’s movements, student movements, Afro-Brazilian activists and urban and rural campaigners) are represented within a shared avenue of resistance against the scheme, often demonstrated by public protests, open letters

⁴⁷ This division of the local resistance coalition was further aggravated by a June 2010 visit to Altamira by President Lula, in which former allies from *Xingu Vivo* and MDTX confronted each other across security barriers (Bratman, 2014).

⁴⁸ There exists a crossover between the two movements, with members of both networks engaging in a process of dialogue and support for one another.

and the dissemination of information to the local community and national and international observers. In providing these resistance materials, both movements provide a forum for members of the local community to detail the local impacts of construction to allied groups at the national and international level. A number of individuals involved in this local opposition have become highly visible in both national and international media's discussion of the contestation of the Belo Monte and São Luiz do Tapajós dams. These individuals include Cacique Raoni Metuktire, Antônia Melo,⁴⁹ Raimunda Gomes da Silva and João Pereira da Silva, Bel Juruna, Edilberto Sena and Ademir Kaba Munduruku.

Ministério Público Federal

Local movements are provided legal assistance by the *Ministério Público Federal* (Public Prosecutor's Office, MPF). Prosecutors in the MPF act similarly to how we understand public interest lawyers in other countries, pursuing cases against individuals deemed to negatively impact upon society (McAllister, 2008). Politically independent of the government, the prosecutors perform headline environmental cases and provide a central legal route of resistance (McAllister, 2008).⁵⁰ The MPF prosecutors also meet with the local community to exchange knowledge and information on social and environmental impacts of the respective projects.

The MPF prosecutors have filed numerous legal cases against the Belo Monte and São Luiz do Tapajós projects. Between 2001 and 2016, 25 legal cases were filed against the Belo Monte project, including cases related to the legally-required need for participation of local communities and the failure to complete adequate mitigative measures in Altamira (S207). 19 legal processes were launched against the Tapajós project between 2012 and 2014, with many concerning the protection of affected indigenous communities (S209).

Researchers

The work of scientists and academics provides a source of information and support for the resistance coalition. Academic support of this kind has come from research at the *Instituto Nacional de Pesquisas da Amazônia* (National Institute for Research in the Amazon, INPA), *Universidade Estadual de Campinas* (the State University of Campinas, UNICAMP), the *Universidade de São Paulo* (University of São Paulo, USP) and *Universidade Federal do Pará* (Federal University of Pará, UFPA).

The collaboration between local groups and researchers represent the dissemination and

⁴⁹ Melo was awarded the Alexander Soros Foundation award in 2017, for her opposition to the Belo Monte project.

⁵⁰ The World Bank (2008) has argued that the autonomy of these public prosecutors results in a lack of predictability of the environmental licensing process in Brazil, with the process often stifled by the actions of the MPF.

translation of expert knowledge at the local level, providing an opportunity for local resistance actors to legitimise their grievances and demands using technical information and expertise. Technical criticism of the project is presented in public meetings and lectures, published in resistance materials (both academic and popular articles) and books (S35; S213). For example, at a 2016 meeting in Santarém to discuss the São Luiz do Tapajós project, the physician Erik Jennings communicated research findings of the impacts that previous hydropower projects have had on methylmercury levels in the surrounding area to 500 members of the local opposition (S213). Similarly, the ecologist Philip Fearnside has written extensively - in both scholarship and articles for a popular audience - on the impacts of the respective projects (S107; S109; S112; S115). The interplay between local groups and national and international researchers represents the exchange of lay- and expert-knowledge linked to environmental policies and projects (Eden et al., 2006; McCormick, 2010). The provision of scientific information to local groups allows for the underpinning of localised grievances and demands through the provision of evidence and providing an opportunity for Brazilian campaign groups to influence government policy (Keck & Sikkink, 1998; McCormick, 2007; 2009; 2010; Barbosa, 2015).

I understand the resistance to the projects studied as involving the formation of alliances between local opposition groups and members of the scientific community and journalists (both in and outside of Brazil) (Keck & Sikkink, 1998; McCormick, 2007; 2009; 2010; Rootes & Nulman, 2015). As a result, the materials provided by these figures will be included within the corpus analysed in this thesis. Although I do not deny the validity or rigour of this research, I characterise these materials as of significance to the opposition network and its contestation of dominant pro-dam storylines.

National and international organisations

A large number of environmental organisations (EOs) and non-governmental organisations (NGOs) are active within the resistance coalition. For example, in a series of summits organised against the Belo Monte project between 2002 and 2010, 113 social, environmental and human rights organisations voiced dissent against the scheme (Fleury & Almeida, 2013).

The resistance coalition includes a number of national organisations, such as the *Coordenação das Organizações Indígenas da Amazônia Brasileira* (Coordination of Indigenous Organizations of the Brazilian Amazon, COIAB), the *Instituto Socioambiental* (Socio-Environmental Institute, ISA) and the *Movimento dos Atingidos por Barragens* (Movement of People Affected by Dams, MAB). These organisations provide specialist support, based on their own mission, background and expertise. For example, COIAB provides critiques based on the impacts that dam projects have on indigenous communities, whilst MAB focuses on the social impacts on non-traditional communities (such as displaced communities in the city of Altamira). Similarly, the MPF is often

assisted by the legal actions of Brazilian organisations, such as SDDH, *Justica Global* (Global Justice) and *Terra de Direitos* (Land Rights), with these organisations filing legal appeals against the Brazilian government at the Inter-American Commission on Human Rights, in an effort to suspend the licensing and construction of the Belo Monte project.

In addition, religious organisations, at both the local and national level, also voiced opposition to the planning and construction of dam projects in the Brazilian Amazon – often presenting the projects as impacting upon the regions indigenous communities. For example, *Conselho Indigenista Missionário* (Missionary Indigenous Council, CIMI), an organ of Brazil's National Council of Bishops, regularly provides support to indigenous communities in the region whilst advocating for their protection at the national level. A leading member of CIMI, Dom Erwin Kräutler, the Prelate of Xingu, has campaigned against the Belo Monte project. This opposition resulted in a number of threats against Kräutler and in his wearing of a bulletproof vest under his vestments (Bratman, 2014). In 2010, Kräutler, a committed adherent to Liberation Theology,⁵¹ was awarded the Right Livelihood Award (commonly known as the Alternative Nobel Prize) for his work in defending the rights of indigenous groups (S182; S286).

Brazilian national arms of international environmental organisations, such as WWF Brasil and Greenpeace Brasil and international organisations, such as Amazon Watch and International Rivers, are present within the resistance coalition.⁵² National and international organisations often provide logistical or technical assistance to localised resistance actors. For example, members of Greenpeace Brasil have supported the Munduruku community opposed to São Luiz do Tapajós by providing technological equipment to assist the community's effort to self-demarcate the Sawré Muybu territory. In addition to this logistical support, organisations have also funded international trips for local resistance figures, produced and distributed films that detail the impacts of the respective projects and disseminated resistance materials that critique the projects. It is this involvement of international actors that has often allowed for the resistance coalition to translate local opposition to the national and international stage.

Opposition activity has taken a number of forms at different levels, from celebrity activism to the dumping of three tonnes of manure outside the offices of the *Agência Nacional de Energia*

⁵¹ Liberation Theology represents the combination of Marxist analysis with Christian theology, with adherents to the philosophy emphasising the connections between concern for the less privileged and their liberation from oppression.

⁵² A number of international EO's – such as Greenpeace, World Wildlife Fund and the Nature Conservancy - have subsidiary offices in Brazil. These Brazilian arms of international organisations can be understood as semi-autonomous organisations, staffed by Brazilians and rooted in the Brazilian environmental movement (Hochstetler & Keck, 2007). I treat these groups as distinct from other environmental organisations that are international in nature but located outside of the Brazilian state (such as Survival International).

Elétrica (National Electric Energy Agency, ANEEL). At the local level, the occupation of facilities remains an important tactic, with indigenous groups and the MAB occupying construction sites and blocking access roads as a form of both sabotage and symbolic dissent (Bratman, 2014). Numerous telephone and email campaigns have been launched at the national level, with physical petitions submitted to President Dilma Rousseff in February 2011 (signed by 500,000 people) and December 2011 (1.3 million) (S18). Additionally, online petitions were launched in January 2011 (collecting 760,000 signatures) and December 2011 (68,000) from signatories in both Brazil and internationally (S114). Furthermore, the international environmental organisation, Greenpeace International has targeted the international companies involved in the construction of the São Luiz do Tapajós project, resulting in Munduruku activists visiting the headquarters of Siemens in Surrey, United Kingdom (S292) and the annual general meeting of Andritz in Graz (S145). Celebrity activism has also provided a particularly visible form of opposition. International figures who have publicly voiced opposition to hydropower projects in the Brazilian Amazon include Arnold Schwarzenegger, Sigourney Weaver and James Cameron (S11; S12; S174). Similar international support for the struggle against the São Luiz do Tapajós project can be found, with figures voicing opposition to the project including Sir Ranulph Fiennes, Joanna Lumley and Sir Paul McCartney (S36).

I understand these national and international organisations as presenting a number of storylines that provide the Belo Monte and São Luiz do Tapajós project with meaning. To do so, they articulate an equivalence between local demands and wider storylines of environmental politics (linked to deforestation, biodiversity protection and climate change). The forwarding of these storylines may contain divergent signifying chains, resulting in a heterogeneity. In interviews, respondents often highlighted differences between the beliefs and strategies of their organisation in comparison to others, such as differences related to the role of dialogue with the Brazilian government and the links between environmental politics and human rights (I4; I13). Whilst national and international groups may adopt technocratic storylines that refer to a project's impacts, local actors forward arguments based on emotions, identities and daily experiences (Zhou, 2004; Bolaños, 2011; Aledo Tur et al., 2018). It is this additional interplay of storylines forwarded by members within the resistance coalition that illustrates a dynamism of resistance storylines and an important characteristic of the pro-dam storyline of sustainability as a 'wedge' that is forwarded to divide resistance actors. It is this that I turn to below.

A history of resistance

The 1989 resistance to the Kararaô project presented a local-global storyline of opposition that drew on an emergent environmentalist worldview that linked traditional communities to notions of environmental protection (Fisher, 1994). A central event in this resistance was the 1989 Altamira Gathering, due to its provision of a space in which local indigenous groups could voice

their grievances and demands to a wider audience of international organisations, media and public figures (Turner, 1993; Zanotti, 2016). The grievances and demands voiced by local communities in 1989 concerned the rights to both territory (to be flooded by Kararaô's reservoir) and culture (deemed under threat by the encroachment on territory). It is through the Altamira Gathering that these demands were presented within a wider storyline. The Kayapó drew upon an international logic of opposition, directly appealing to storylines of biodiversity and environmental protection and enrolling them into their demands for recognition and land-demarcation (Turner, 1993; Fleury & Almeida, 2013; Zanotti, 2015; 2016). Within discourse theory, this represents an act of articulation that positions local demands and grievances (related to territorial and cultural recognition) as equivalent to additional elements, present in international storylines of environmental policy and politics.⁵³

At the 1989 Altamira Gathering, the resistance of the Kayapó was positioned within an international discourse of environmental politics that asserted that the traditional knowledge systems and sustainable management practices of indigenous communities provide an opportunity for global carbon sequestration (Zanotti, 2016).⁵⁴ Within resistance storylines, the indigenous communities opposing Kararaô and their localised grievances and demands were presented as actors defending the natural environment and biodiversity of the Brazilian Amazon region from the impacts caused by the construction of a hydroelectric dam (Turner, 1993; Zanotti, 2015; 2016). This positioning represents the forwarding of a resistance storyline that 'scales up' local opposition into an international storyline of environmentalism, articulating a chain of equivalence between (local) demands of territorial protection and cultural recognition with emergent (universal) environmentalist demands that linked to traditional communities to rainforest and biodiversity protection. It is by asserting these links that the group were able to demonstrate that the local threats to land and livelihood had a place in international storylines of environmental health and social justice, resulting in the development of numerous partnerships with national and international organisations and the eventual cancellation of Kararaô (Zanotti, 2015; 2016). The resistance coalition developed an important bridge between the social and the environmental

⁵³ The Kayapó communities of the Xingu region had historically resisted encroachment into their territory (such as from illegal mining and logging) and had developed links with national and international organisations during the 1980s (Turner, 1993). Due to this, the Kayapó community was aware of the importance of presenting their grievances and demands in an internationalist language (Zanotti, 2016).

⁵⁴ The link between indigenous groups and notions of sustainable development can be seen in subsequent international environmental governance. Principle 22 of the 1992 Rio Declaration emphasised that indigenous communities have "a vital role in environmental management and development because of their knowledge and traditional practices" (UNGA, 1992a). The document later argues that all states must "support their [indigenous communities'] identity, culture and interests and enable their effective participation in the achievement of sustainable development." Furthermore, both the 1992 Biodiversity Convention (UNGA, 1992b) and Agenda 21 (UNCED, 1992) emphasised the role of traditional knowledge and resource management processes in sustainable development agendas.

repercussions of dam construction and voiced them at the international level, allowing for the development of a strong coalition compelled by both local demands and more-international storylines of environmental protection. This fusion of demands proved successful, with Kararaô later removed from national energy plans.

However, the opposition to the contemporary Belo Monte and São Luiz do Tapajós dams has not shared the success of the 1989 Altamira Gathering (Carvalho, 2006; Hochstetler, 2011; Bratman, 2014; 2015; Zanotti, 2015; Barbosa, 2015). Within the cases studied, the contest of pro-dam and resistance coalitions has largely favoured the lobby that has supported the projects (Hochstetler 2011; Bratman, 2015). There are a number of reasons for the ineffectiveness of opposition networks. First, pro-dam actors are able to conduct an extended effort to secure construction of the schemes. The perceived gains of the successful completion of the scheme far outweigh any potential costs for the pro-dam coalition (Carvalho, 2006). With the *apagão* (power shortages) of 2001 and 2002 presented as providing an impetus for the planning and construction of the Belo Monte project (Carvalho, 2006; Vieira & Guimarães Dalgaard, 2013; Atkins, 2017), the pro-dam coalition has remained committed to the project's completion.

Whilst previous infrastructure projects in Brazil have been reliant upon international funding and support, contemporary schemes are not dependent upon this support (Carvalho, 2006; Barbosa, 2015). With BNDES having an important role in financing the Belo Monte project, scholars have highlighted how this domestic source of funding has weakened the opposition by insulating the project from the 'boomerang strategy' that had seen local opposition to Kararaô change national policy by influencing the multilateral World Bank to withdraw funding (Keck & Sikkink, 1998; Carvalho, 2006; Hochstetler, 2011; Barbosa, 2015; Rootes & Nulman, 2015). In light of this prolonged contest, it has been difficult for the resistance coalition to conduct traditional activist strategies to generate public opposition against dam projects over an extended period of planning and construction. This is due to the short-term nature of activist strategies such as petitions and protests. Many anti-dam campaigns in Brazil adopt reactive strategies, politicising issues to ensure public pressure (Carvalho, 2006). However, the successes of this are limited in terms of time and sedimentation, due to the resistance coalition lacking the necessary resources to sustain public attention via campaigns, to enter protracted legal proceedings and continue to bridge the number of diverse interests represented within the campaign itself (Carvalho, 2006). With the pro-dam coalition engaged in a prolonged moment of contestation over the projects, the strength of the opposition is stretched and weakened (Carvalho, 2006).

Furthermore, pro-dam actors have taken advantage of the plurality of demands and grievances present in the resistance coalition to divide opposition to the Belo Monte project. For example, at the local level, pro-dam actors have forwarded a number of policies and storylines that acts as a

‘wedge’ to divide the resistance coalition. As discussed above, the local resistance networks opposing Belo Monte were divided by government promises of supplementary infrastructure, with MDTX publicly declaring that they would not oppose the project - in exchange for government promises to improve road infrastructure in the region (Bratman, 2014). In doing so, pro-dam actors provided concessions to groups to both highlight the plurality of interests, motivations and demands in the local resistance network and to divide this opposition (Bratman, 2014). With MDTX publicly declaring its acquiescence to the scheme, the pluralistic resistance coalition’s unity in opposition was challenged.

Pro-dam actors have also forwarded storylines that dismiss the role of international actors in the resistance coalition as representing a form of ecological imperialism (Conklin, 2002; Hochstetler & Keck, 2007; Zhouri, 2010; Bratman, 2014; Atkins, 2017). Within this storyline, international organisations are presented as undermining Brazilian sovereignty over the Amazon region and restricting the state’s economic development (Carvalho, 2000). For example, in 2002, Federal Deputy for Pará, Asdrubal Bentes (PMDB-PA) argued that opposition networks “...wish to derail our development, who want to stifle the Amazon and not allow us to make the most of our hydroelectric potential, to use our riches in favour of Brazilians” (S34). Similarly, President Lula argued that “From time to time, along comes a gringo to take a shot at Brazil. We need to show the world that no one wants to care for our forest more than us; but it is ours and no gringo should poke his nose in where it is not wanted, because we shall care for our forest and we shall take care of our development” (S96). This linking of international opposition to Belo Monte to a form of international conspiracy – and, with it, elements of Brazilian nationalism – ties the hydropower scheme to a particularly entrenched desire for sovereignty over the Amazon (Hochstetler & Keck, 2007; Zhouri, 2010). Belo Monte becomes presented as a nationalist project, battling outsider influence (Zhouri, 2010; Atkins, 2017). This forwarding of storylines by pro-dam actors to divide the opposition networks emphasises the plurality of the coalition, highlighting different between local, national and international actors. This weakens the resistance coalition due to the discrediting of one of the central successes of the 1989 movement against Kararao – international support (Zhouri, 2010).

I argue that there exists an additional factor that explains how contemporary resistance to the Belo Monte project has not shared the same success as the 1989 opposition movement to the Kararaô and Babaquara project – with pro-dam actors forwarding an emergent storyline of sustainability.

The pro-dam storyline of sustainability

In this research, I focus on an emergent storyline in the presentation of hydropower projects by pro-dam actors in Brazil: the storyline of sustainability. Pro-dam actors argue that contemporary hydropower projects in Brazil represent sustainable energy and contribute to sustainable

development agendas (S98). Although there is evidence of this storyline of sustainability in discussions of the São Luiz do Tapajós project (I10; S146), this storyline is particularly evident in how pro-dam actors discussed Belo Monte. The relatively long history of the modern Belo Monte project (with the renewed plans originating in the early 2000s) has resulted in an extensive amount of source materials (Bingham, 2010; Cronos, 2014; Bratman, 2015; 2016; Atkins, 2017; 2018a).

A storyline of sustainability can be seen in the words of prominent proponents of the Belo Monte project. For example, at a 2010 rally in Altamira, President Lula asserted “Let us use clean energy and preserve the environment. This is my commitment” (S84). Similarly, in 2012, the then-Minister for Mines and Energy, Edison Lobão, argued that “Plants like Belo Monte have been designed to minimise their impacts and they will allow Brazil to go forward with a power network that boasts minimal emissions” (S97). In making these statements, the government officials present the Belo Monte dam as representative of contemporary notions of sustainability, asserting its role as *clean energy* with minimal impacts on the environment. Fernando Ferro, a Federal Deputy and developer of the 2005 bill that approved Belo Monte, has argued “this hydroelectric project ...[will] be undertaken in compliance with our political, social and environmental responsibilities” (S118). Chico Lopes, another Federal Deputy, would later argue that Belo Monte represents “a clean and renewable energy source that will prevent future non-green energy” (S186). Similarly, the *Empresa de Pesquisa Energética* (Energy Research Company, EPE) have argued that Belo Monte should be understood as representative of Brazil’s commitment to sustainable development (S98). In forwarding a storyline of sustainability, pro-dam actors articulate the equivalence between the project and the concept of sustainable development – positioning the two signs in a signifying chain that legitimises the Belo Monte project.

Within this articulation of Belo Monte within a storyline of sustainability, proponents of the dam have adapted the historic storylines of dams as a route to economic development and prosperity, to include an environmental component (Vieira & Guimarães Dalgaard, 2013). A fluidity of storylines is detected, which allows for the provision of a rebuttal to opposition networks’ criticism of the Belo Monte and São Luiz do Tapajós. Within the theoretical framework adopted, the forwarding of this storyline can be understood as indicative of a logic of difference, in which the partially-hegemonic storyline of the hydraulic mission absorbs the environmentalist demands present in historic storylines of resistance into a signifying chain to legitimise the contemporary hydropower projects. Pro-dam actors articulate the sign of ‘sustainability’ into the signifying chain to highlight an equivalence between the projects studied and notions of sustainable development.

The storyline of sustainability in Brazil has two advantages. First, it draws on an increasing

environmentalist consciousness in the Brazilian state itself. Pro-dam storylines often appeal to a ‘moral legitimacy’, with the project presented as a part of a value system that is dominant at the time (Bezerra et al., 2014). Pro-dam storylines of sustainability position hydropower projects within a growing environmental consciousness in the Brazilian population to ensure a legitimacy and widen the perceived benefits of the project. A 2012 poll by the *Ministério do Meio Ambiente* (Ministry of the Environment, MMA) showed that 82 percent of respondents were unwilling to have more economic development at the expense of the environment (MMA, 2012). In the same survey, 51 percent of respondents stated that they would be willing to provide financial assistance to protect the Amazon region, an increase of 38 percent in 2006. A growing environmental consciousness can be seen in the political rise of, the former government minister, Marina Silva in the 2010 and 2014 Presidential elections (Nunes & Peña, 2015). The ‘Marina Phenomenon’ represented the elevation of socio-environmental issues into the political landscape, with environmental issues presented within a wider mosaic of social injustice, political corruption and reform. Silva and the *Partido Verde* (Green Party, PV) were able to position and mobilise sustainability as a signifier in the social demands that dominated Brazilian news cycles in the summer of 2013 (Hochstetler & Viola, 2012; Nunes & Peña, 2015). It is by positioning the Belo Monte and São Luiz do Tapajós projects within this political context that pro-dam actors are able to present the projects as complementary to the environmentalist values of the populace, locating the dams within wider sustainable development agendas and secure a legitimacy of planning and construction.

Second, the adoption of these storylines of sustainability is representative of a wider process (Lee, 2013; Ahlers, 2015; Huber & Joshi, 2016). Issues of climate change mitigation and sustainable development have become drivers for contemporary hydropower expansion (Moore et al., 2010). Numerous states have turned to hydropower expansion to increase generation capacity and energy supply and have been able to secure international financial support. For example, the World Bank – subscribing to this view of hydropower as sustainable energy - has started increasing funding for hydroelectric projects, as evident in its funding for the Inga-3 project in the Democratic Republic of Congo. Between 2003 and 2009, the organisation approved funding for 67 hydropower projects, totalling to US\$3.7 billion (Wang, 2012).

The characterisation of hydropower as part of sustainable development agendas is evident at the international level. Within policy documents, the sustainability credentials of hydropower are often predicated on its characterisation as renewable energy. For example, the World Bank (2009: np) has highlighted “hydropower’s multidimensional role in poverty alleviation and sustainable development”, describing the energy source as “a critical renewable energy resource”.

Furthermore, both the 2004 Bonn International Conference on Renewable Energies⁵⁵ and the United Nations Beijing Declaration on Hydropower and Sustainable Development have recognised hydropower as a renewable energy source with a role to play in climate change mitigation. The characterisation of hydropower as renewable energy is based on the belief that water resources represent a non-finite source of energy, in comparison to the conventional fossil fuels of coal, oil, and natural gas. Within this understanding, the hydroelectric potential of rivers will remain when the stocks of nonrenewable energy sources are depleted. However, I do not understand this ‘renewable’ character as representative of a project’s ‘sustainability’. Hydropower projects have been criticised for their numerous environmental and social impacts (WCD, 2000), resulting in the emergence of a disconnect between the infrastructure’s classification as ‘renewable’ energy and the consequences of its construction. I differentiate this affirmed ‘renewable’ nature from the understanding of ‘sustainability’ adopted and follow the argument of Ahlers et al. (2015: 198), who stated that “repackaging hydropower infrastructure as clean energy is confusing the resource with the instrument: water is renewable, yet dams are not.”

A key factor in the characterisation of hydropower as sustainable is its role in schemes of climate change mitigation, with pro-dam actors arguing that large dams emit relatively low levels of greenhouse gases (GHGs) when compared to other energy sources (Biswas & Tortajada, 2001; Altinbilek, 2002; Berga, 2016). For example, Berga (2016: 313) describes hydropower as “clean, renewable and environmentally friendly source of energy.” Within this statement, Berga characterises hydropower as both ‘clean’ and ‘environmentally friendly’, going on to argue of the importance of the energy source in climate change mitigation and sustainable development (Berga, 2016). Key within this characterisation of hydropower as a sustainable energy source is the Clean Development Mechanism (CDM), created by Article 12 of the 1997 Kyoto Protocol. The CDM was created as a mechanism for Annex I states (wealthy states, primarily in the global north, who have accepted a maximum limit on their emissions) to provide funding for sustainable development and climate change mitigation projects in Annex II states (developing states, primarily in the global south, without a national cap on emissions). Hydropower projects are categorised as a source of energy with low GHG emissions within the CDM and are eligible for Certified Emission Reduction certificates (CERS, carbon credits) (CDM Executive Board, 2009).⁵⁶ As of August 2017, 2,198 hydropower projects are provided with carbon credits under

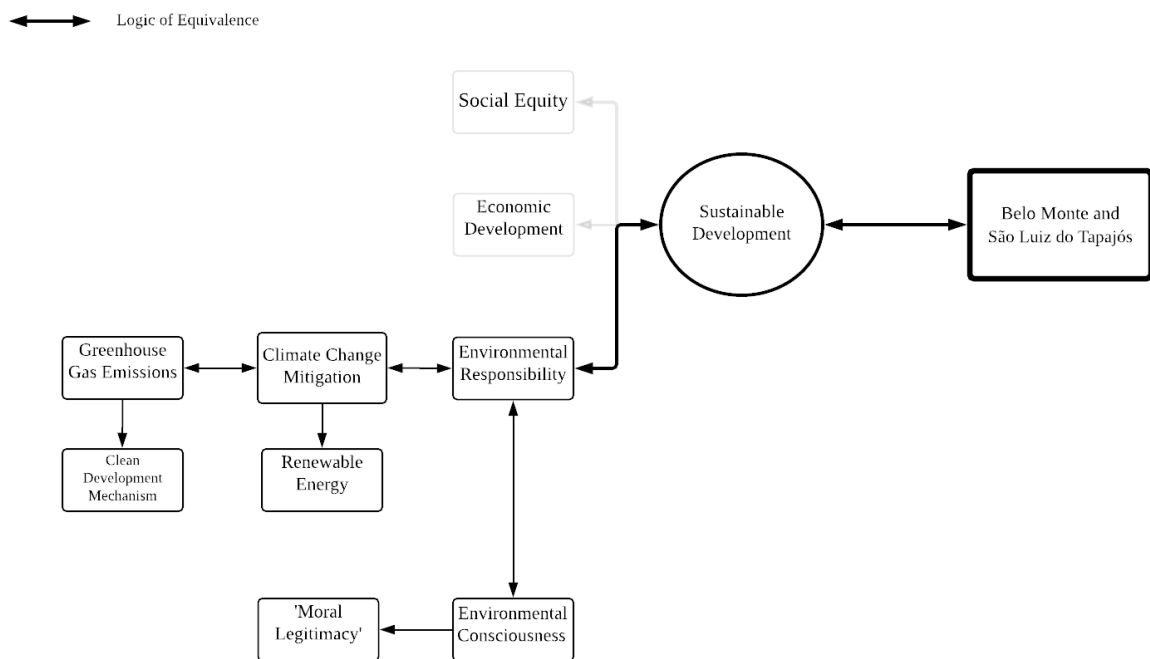
⁵⁵ Agnes da Costa (2014) has asserted that the actions of, former Minister of Mines and Energy (2003-2005) and President (2011-2016), Dilma Rousseff as the head of the Brazilian delegation to the 2004 International Conference for Renewable Energies in Bonn had a pivotal role in the development of this understanding of hydropower as a renewable energy source.

⁵⁶ Under the 2011 Marrakech Accords, a project’s eligibility for CDM funding is approved by the host country, with the government issuing a Letter of Approval certifying the sustainable development credentials of the project. In Brazil,

the CDM (cdmpipeline, 2017). Brazil has become one of the primary destinations of carbon credits via the CDM, embracing the mechanism to increase energy generation capacity whilst continuing its commitment to climate change mitigation (Raftopoulos & Riethof, 2016). Although neither of the projects studied received carbon credits, several large dams in Brazil are provided funding by the mechanism, such as the Santo Antonio and Jirau and Teles Pires hydroelectric projects.

Figure 3 below demonstrates that in presenting a storyline of sustainability, the pro-dam coalition has articulated the equivalence between the respective dams and the nodal point of sustainable development. In turn, this has positioned the project as related to two additional signs: the Clean Development Mechanism (linked to greenhouse gas emissions and renewable energy) an emergent environmental consciousness in Brazil, which, in turn, links the project to a moral legitimacy (Bezerra et al., 2014).

Figure 3: The Brazilian Pro-Dam Storyline of Sustainability



However, the storyline of sustainability remains contestable. Brazilian environmental organisations have historically provided alternative understandings of sustainability, reconciling the disconnect between the social and the natural realms by adopting a narrative of environmental justice that asserts the connection between social and ecological marginalisation (Hochstetler & Keck, 2007; Wolford, 2010; Vadjunec et al., 2011; Zhouri, 2015). For example, in the run-up to

this decision is made based on the submission of an additional document, detailing the project’s integration in local and regional sustainable development policies (Fernández et al., 2014).

the 2002 World Summit on Sustainable Development in Johannesburg, South Africa, a coalition of both national and international NGOs working in Brazil released a manifesto titled *The Sustainability That We Want*. Within this document, the actors involved distanced themselves from dominant notions of sustainable development and asserted the need for dominant understandings of sustainability to be extended to incorporate a language of socio-environmental injustice, the need for transformative change of the system of production and consumption and democratic struggle (S59). This document fuses elements of justice and rights, democracy and overconsumption into a signifying chain that constitutes an alternative sustainability, forwarded to challenge the dominant concept of sustainable development.

With the concept of sustainable development characterised by an ambiguity and malleability (Redclift, 2005; Connelly, 2007; Leach et al., 2010), these contests over dam-construction represent the occurrence of *contested sustainabilities*, in which the sustainability credentials of policy, process or project are challenged, critiqued and reconfigured (Harris, 2009). Contests over environmental policy and politics challenge dominant meanings of the concepts of sustainability and sustainable development and advance alternative storylines of a sustainable future (Scheidel et al., 2017; Temper et al., 2018). For example, opposition to the Clean Development Mechanism has employed new storylines of opposition, forwarding a storyline that links the CDM to human rights violations and climate and environmental justice (Kuchler, 2017). An example of this can be seen in the 2016 decision by the Panamanian government to withdraw the Barro Blanco hydroelectric plant from the CDM in response to a resistance storyline that linked the project to human rights violations, based on the lack of participation of an indigenous community displaced by the project (Chatziantoniou & Alford-Jones, 2016; Giraldo, 2017). Similarly, the Poçem dam in Albania has been opposed by a resistance coalition that presented the project as in breach of the local community's rights. In forwarding these storylines, resistance actors in both Panama and Albania have reconfigured pro-dam storylines of sustainability to highlight social and environmental impacts that remain unaddressed by pro-dam actors.

In subsequent chapters, I explore the storylines adopted by actors in the resistance coalition to challenge and reconfigure the pro-dam sustainability storyline. It is argued that the resistance coalition has, within opposition storylines, regrounded the complexes within a wider understanding of sustainability, linked to questions of social and environmental impacts, political corruption and ideology, and the human rights and protection of minority groups.

Conclusion

In this chapter, I have presented the Belo Monte and São Luiz do Tapajós projects as evidence of the continued importance of hydropower in contemporary Brazilian energy politics. Following this, I have characterised energy politics in Brazil as representing a process of contestation

between a pro-dam and a resistance coalition. The actors and groups within these coalitions have been profiled, providing evidence of the numerous demands present within this contest. I argue that these actors and groups articulate the projects within a certain signifying chain, presenting the project in storylines that either legitimise or delegitimise the project.

This interplay between the storylines of the pro-dam and resistance coalitions is not a new occurrence but can instead be traced to the cancellation of, Belo Monte's predecessor project, Kararaô in 1989. In presenting storylines of territorial and cultural rights at the 1989 Altamira Gathering, the opposition to this scheme engaged in a process of 'scaling up', demonstrating the links between their local demands and a universal storyline of environmental protection. However, whilst this storyline of 1989 proved successful, the resistance coalition has encountered difficulties in its opposition to the Belo Monte project. I have profiled the storyline of sustainability and its underpinnings within both Brazilian society and international policy. This storyline of sustainability remains contested, with resistance groups engaging in a reconfiguration of contemporary storylines of sustainability. It is this contest that I will discuss in the empirical chapters of this thesis.

Chapter 5

A storyline of repoliticisation

In this chapter, I turn to how resistance actors have forwarded a storyline that repoliticises the Belo Monte and São Luiz do Tapajós hydroelectric projects by illuminating the political and economic context of their construction. A storyline of sustainability is forwarded by pro-dam actors to depoliticise the projects studied, denying their political character and differentiating between ‘legitimate’ and ‘illegitimate’ actors, grievances and demands. With pro-dam storylines, alternative visions of the project are cast aside and characterised as unrealistic, criminal or subversive. However, I explore how resistance actors have presented alternative visions of the project that reveal the political interests that underpin the planning and construction of the projects studied.

In forwarding a *storyline of repoliticisation*, resistance actors reconfigure the pro-dam storyline of sustainability by articulating an equivalence between the projects studied and a number of additional signs, including political corruption, the totalitarianism of the military junta that ruled Brazil between 1964 and 1985 and the political careers and policies of Presidents Luiz Inácio Lula da Silva (2003-2011) and Dilma Rousseff (2011-2016). These new elements, now positioned within the signifying chain, are forwarded by resistance actors to illuminate the interests that underpin the projects’ planning and construction. Resistance actors foreground their opposition to the projects within a shifting political context in contemporary Brazil, characterised by increasing dissent and the fragmentation of support for the *Partido dos Trabalhadores* (PT). This repoliticises the dams studied, rendering visible the political context, interests and motivations behind their planning and construction, as well as critiquing the pro-dam storyline of sustainability as a ‘tool’ of legitimacy. An alternative vision of the reasons for the projects’ planning and construction is forwarded, with resistance actors articulating the dams as key symbols of government corruption and impunity.

This chapter is divided into four sections. In the first, I introduce how, in forwarding the storyline of sustainability pro-dam actors depoliticise the projects studied by locating their construction within agendas of economic development and what is described as the ‘national interest’. In the second, I introduce the emergent politics of dissent in contemporary Brazil, highlighting the ‘June Days’ protests of June 2013 as an example of contemporary popular disillusionment in Brazil. I then introduce three elements articulated within the storyline of repoliticisation. First, the floating signifier of political corruption; second, the equivalence between the projects studied and the political priorities, motivations and careers of Presidents Luiz Inácio Lula da Silva and Dilma

Rousseff; and, third allusions to the military dictatorship of 1964 to 1985. These elements are all articulated within a logic of equivalence, with the Belo Monte and São Luiz do Tapajós projects positioned as symbolic of the authoritarian and dishonest interests that drove the respective dams forward, with limited concern for social and environmental impacts.

A pro-dam storyline of depoliticisation

The storyline of sustainability represents a process of depoliticisation, with its forwarding by pro-dam actors resulting in the simplification of the debates regarding hydropower, climate change and renewable energy to present the Belo Monte and São Luiz do Tapajós projects as technical, rather than political, decisions and delegitimise opposition (Zhourì, 2015; Atkins, 2017). A process of depoliticisation is perceptible in the words of Fernando Ferro, who argued, in the wake of a widespread power cut in 2009, that:

We cannot, therefore, accept this hysteria from those who wish to politicize this issue, but at the same time we must have the humility to recognize that the necessity of learning lessons from this episode, so that the Brazilian energy system remains secure and clean, so that it remains one of the mainly hydroelectric systems, which affords us the security of not emitting greenhouse gases (S119).

Similarly, Edison Lobão, the then Minister of Mines and Energy (2008-2011; 2012-2015) argued that:

We see large media outlets criticizing projects like Belo Monte, but they often do so based on arguments that are not real, saying that we are going to harm the indigenous and riverine populations. That is misinformation. Plants like Belo Monte have been designed to minimize their impacts and they will allow Brazil to go forward with a power network that boasts minimal emissions (S97).

In making these statements, pro-dam actors contrast the perceived sustainability of Belo Monte with the grievances and demands of those opposed to the project. Lobão argues that resistance actors are presenting ‘misinformation’, casting these demands as false, misleading and illegitimate. With the project both strategically important (in terms of energy security) and representing sustainable development, Lobão argues that the opposition to the project is restricting the realisation of this sustainability, blocking the construction of the project based on ‘misinformation’.

In forwarding the storyline of sustainability, pro-dam actors fuse together contemporary concerns related to environmental protection and climate change with the historic assertion of the

construction of a dam as providing a gateway to national economic development (Vieira & Guimarães Dalgaard, 2013). The compatibility of environmental protection and economic development are asserted, with the respective projects presented as simultaneously sustainable and as stimulating economic development. The historic element of economic development remains an integral part of contemporary pro-dam storylines. For example, in 2011, President Dilma Rousseff defined the Belo Monte project as a “fundamental undertaking for the development of the region and the country” (S57). In the same year, the then-Senator of Rio de Janeiro, Francisco Dornelles argued that “the construction of Belo Monte dam is of [the] greatest importance for the development of the country. . . to sustain economic growth, [and] job creation” (S280). In making these statements, the pro-dam actors articulate an equivalence between the Belo Monte project and the economic future of the region, providing benefits for a diverse group of beneficiaries (Atkins, 2017). The Federal Deputy for Amazonas, Carlos Souza (*Partido Progressista*, PP) argued Brazil “need[s] the Belo Monte hydroelectric project... so that this country can continue to grow” (S281). Within this storyline, Belo Monte becomes a symbol of a shared future of economic development and an integral part of the Brazilian national interest - with the project presented as the only route forward (S131).

In asserting the economic benefits to be stimulated by the Belo Monte project, pro-dam actors present the projects as apolitical, technical projects that are in the ‘national interest’ (Zhour, 2015; Atkins, 2017).⁵⁷ For example, José Carlos Aleluia, a former president (1987-1989) of the *Companhia Hidrelétrica do São Francisco* (São Francisco Hydroelectric Company, CHESF) and Federal Deputy for Bahia (*Partido da Frente Liberal*, PFL), labelled the project as “not a government project, [but] a project of the nation” (S6). In making this statement, Aleluia articulates an equivalence between the Belo Monte project and the ‘national interest’, affirming that the dam represents a national effort towards energy security that would provide benefits for the population across Brazil (S6). These allusions to a common future were repeated by a number of other pro-dam actors when discussing the Belo Monte project (S57; S58; S280), with the project affirmed as part of a common future and widening the perceived beneficiaries of the project.

This articulated equivalence between Belo Monte and the national interest raises the project above *the political*, rendering it apolitical and delegitimising resistance actors. By articulating an equivalence between Belo Monte and a shared future, pro-dam actors, such as Aleluia, draw a division between those in support of the scheme (sharing in the common future) and those opposed to the project, existing both outside the defined ‘national interest’ and standing in its

⁵⁷ I understand the ‘national interest’ an expression of a state’s ambitions, be they of an economic, cultural or military nature.

way. Resistance actors were described as holding Brazil back from the economic development promised by the Belo Monte dam (Zhour, 2010; Atkins, 2017). For example, Asdrubal Bentes, a Federal Deputy (*Partido do Movimento Democrático Brasileiro*, PMDB), argued in 2001 that potential resistance to the Belo Monte project represented an “intolerance from those who do not want to see this country develop... [and to be] producing well-being for its people” (S33). In asserting this ‘intolerance’, Bentes distinguishes a divide between ‘legitimate’ and ‘illegitimate’ grievances and demands. The arguments of resistance actors become representative of the demands of those who, in the words of Bentes in a later speech “...wish to derail our development, who want to stifle the Amazon and not allow us to make the most of our hydroelectric potential, to use our riches in favour of Brazilians” (S34). It is within this process that the pro-dam coalition strips the contests that surround dam-construction of their agonistic character, casting opposition actors as existing outside of the legitimate order and excluding them from democratic debate. This process of depoliticisation is also evident in a 2010 speech made by President Lula in Altamira, the city nearest to Belo Monte’s construction site. Within this address, Lula compared the resistance coalition to his personal experience protesting the Itaipu dam,⁵⁸ arguing that his opposition was the result of a lack of information and awareness of the importance of such projects. He argued that:

The opposition [to Itaipu] - like these kids [those opposing Belo Monte] - for lack of information, used to say that an earthquake would happen, say that the Itaipu reservoir would cause an earthquake in the Itaipu region... [and that] the weight of the water would change the Earth’s axis (S96).

In making this statement, President Lula casts the opposition to Belo Monte as ‘kids’ who are naive and mistaken, highlighting what he perceives as their having a limited knowledge of the project and the problems that it is intended to solve. In drawing on his own experience opposing Itaipu, Lula highlights that the contemporary opposition to Belo Monte will, with time, understand the importance of the project (Atkins, 2017). Lula presents an image of resistance actors as not only blocking the fulfilment of Brazil’s national interest but doing so based on incomplete information and illegitimate grievances. Within this pro-dam storyline of depoliticisation, the resistance coalition is presented as voicing unfounded, reactionary and illegitimate demands that cannot be seen to hinder the construction of Belo Monte. As Senator for Rio de Janeiro (2007–2014), Francisco Dornelles (*Partido Progressista*, PP) argued in 2011 Brazil cannot “allow [these] partial views of reality to prevail in the face of general interest” (S280). The storyline

⁵⁸ Built on the Parana river at the Brazil-Paraguay border, the Itaipu dam was completed in 1984 in a bi-national operation between Brazil and Paraguay. The project flooded 1,350km² - inundating the world-famous Guaira Falls - and displaced an estimated 59,000 people (Terminski, 2014)

depoliticises the contest surrounding the projects studied, rendering their construction as a technical pursuit devoid of a political content, with the resistance actors characterised as misguided, ignorant and restricting Brazilian economic development.

In summary, pro-dam actors articulated the equivalence between the planning and construction of the Belo Monte project and the Brazilian national policies of economic development. The forwarding of this storyline depoliticises the construction of Belo Monte, raising the project above the antagonism of *the political* and presenting resistance actors as illegitimate. In response to this pro-dam storyline of depoliticisation, resistance actors advance an alternative storyline that renders visible the political interests and motivations linked to the planning and construction of both the Belo Monte and São Luiz do Tapajós dams. It is this that I turn to below.

The ‘June Days’

In advancing a storyline of repoliticisation, the resistance coalition has drawn from contemporary political events in Brazil. In the years since 2013, the Brazilian political landscape has become characterised by increasing dissent and political polarisation. This is with a particular reference to a series of political protests, geographically spread across the country, in June and July 2013, that have since been described as the most visible political protests in a generation (Saad-Filho, 2013).

Rising out of protests against fare increases in the public transport system in major cities, these demonstrations, known as the *Jornadas de Junho* (June Days) - grew into a mass movement across Brazil, with more than 1 million people taking to the streets to protest against the political status quo of Brazil at the time. These protests involve a diversity of actors expressing a variety of grievances and demands, voicing dissent over public services and rising costs of transportation, the staging of the football World Cup and Olympics mega-projects in Rio de Janeiro, partisan politics and the deemed failure of the PT government (Saad-Filho, 2013).^{59,60} As a result, the ‘June Days’ came to represent a communal outpouring of dissent not driven by a single demand but by a variety.

⁵⁹ As Alfredo Saad-Filho (2013: 659) describes, “It was not uncommon to see meaningless slogans in the demonstrations (‘The Giant Has Awoken’), vacuous demands (‘Brazil Must Change Now!’), needless requests (‘Pray for Brazil’), empty threats (‘End Corruption or We Will Stop the Country’) and bizarre fashion statements (‘I Want a Louis Vuitton Bag’).”

⁶⁰ The protests are presented by Saad-Filho (2016) as representative of a wide social base; students marched alongside workers, left-wing activists alongside the middle classes. However, this claim of the plurality of the 2013 protests is disputed by Costa Vargas (2016), who argues that Afro-Brazilians were visibly underrepresented.

As these popular protests continued, the initial demands of July 2013 increasingly crystallised around a set of demands and grievances related to political corruption. This was in response to the high-profile *Lava Jato* ('Car Wash') investigation that exposed a culture of corruption at the centre of Brazilian politics. This investigation started in 2014 as a probe into money laundering at the *Posto da Torre* (Tower Gas Station) in Brasília but soon widened to become an expansive anti-corruption investigation into an intricate web of political and commercial corruption. The enquiry uncovered an extensive scheme of corruption centred on the semi-public oil company, *Petróleo Brasileiro S.A. (Petrobras)*, where executives were allegedly paid bribes to award contracts to favoured construction companies. This money would be funnelled to politicians, funding election campaigns that kept the governing coalition in power.⁶¹ The resultant investigation has ensnared the largest construction companies in Brazil (such as Camargo Corrêa, Odebrecht, Queiroz Galvão and Andrade Gutierrez) and a number of political parties in government during the years of Lula and Dilma's presidencies, such as the PT,⁶² the *Partido Progressista* (Progressive Party, PP) and *Partido do Movimento Democrático Brasileiro* (Brazilian Democratic Movement Party, PMDB). As of July 2017, the total amount of misappropriated funds within this scheme is understood to equal R\$3.6 billion (£877.7 million) (\$201).

With the *Lava Jato* investigation becoming one of the premier issues of contemporary Brazilian politics,⁶³ it represents a floating signifier - a sign that is articulated within numerous, often-divergent signifying chains (Laclau & Mouffe, 1985). The element of political corruption is present in a number of storylines of contemporary Brazilian politics, with political parties accusing one another of illegality and corruption (Observation, 27/09/2016). An example of this can be seen in the impeachment of President Dilma Rousseff, who was voted from office by the Brazilian Senate in August 2016. Within impeachment proceedings, Dilma was formally accused of failing to respond adequately to the *Lava Jato* scandal and illegal behaviour in relation to national budgetary policy. However, her impeachment was overseen by a number of figures also implicated in the corruption scandal including, the President of the Chamber of Deputies, Eduardo Cunha and Vice-President and current President of Brazil, Michel Temer. At the time of the Congressional vote of Dilma's impeachment, it is understood that up to 303 of the 513 Federal

⁶¹ The Brazilian political system is characterised by electoral coalitions. From 2010 to 2016, Brazil was governed by a centre-left coalition of ten parties, led by the PT. From 2010 to 2014, this coalition was named *Para o Brasil Seguir Mudando* ('For Brazil to Keep on Changing'). It was renamed *Coligação Com a Força do Povo* ('With the Strength of the People') in 2014.

⁶² President Lula was sentenced to twelve years in prison for his role in the Petrolão scandal in July 2017. After exhausting his right to appeal, Lula surrendered to the Brazilian authorities in April 2018.

⁶³ The judges and prosecutors presiding over the cases have become national figures, with one police officer involved being memorialised with a six-metre high effigy at the 2017 Rio de Janeiro Carnival (Watts, 2017).

Deputies and 49 of the 81 Senators sitting at the time were under investigation for corruption (Bevins, 2016). Within this context, impeachment proceedings were dominated by officials accusing rival politicians of corruption – either to discredit Dilma or to challenge the validity of impeachment proceedings (G1, 2016). With the sign of corruption present in the storylines forwarded by numerous actors in contest with one another, its meaning is not fixed and it becomes a floating signifier.

The role of corruption

As the *Lava Jato* investigation is ongoing at the time of writing, this floating signifier of corruption remains emergent. Yet, resistance actors have articulated the equivalence between this corruption and popular dissent and the Belo Monte project. In articulating an equivalence between the Belo Monte and São Luiz do Tapajós dams and the *Lava Jato* corruption investigation, resistance actors highlighted its links to the planning, development and construction of dams in the Brazilian Amazon (I4; I6; I11; I16; I18; I20; I21; Q9; Q14; S17; S43; S226; S227; S307).

A key act of articulation in the resistance storyline of repoliticisation highlights the equivalence between the Belo Monte and São Luiz do Tapajós projects and the close relationship between the PT government, political parties in the Brazilian Congress and the construction sector (I4; I5; I17; S295).⁶⁴ For example, a 2011 letter from resistance actors, congratulating Dilma on her election as President, argued that Belo Monte was being pushed forward by what is described as the ‘*relações promíscuas*’ (‘promiscuous relationship’) between political and commercial actors (S307). Although making no direct reference to the occurrence of corruption, by referencing a ‘promiscuity’ this letter - written in 2010 - presents the nature of this relationship as both close and immoral (S307). Similarly, the activist for - the international EO - International Rivers, Zachary Hurwitz coined the term ‘hydro-máfia’ (S148). This evokes a criminality in the actions of the constituent members of this association, with Hurwitz’s use of the term alluding to the violent, covert and ruthless character of the pro-dam lobby.

Resistance actors presented this ‘promiscuous relationship’ as an explanatory factor for the construction of the Belo Monte project – with the dam presenting an opportunity for the alignment of the interests of the two groups and, with it, corruption (I4; I6; I8; I18; I20; I21; S307).⁶⁵ For

⁶⁴ This historic relationship is presented as a result of the pragmatism of the construction companies, with their donating to numerous political parties and working with Brazilian governments of numerous ideological stripes, including the military dictatorship (I1; I3; I6; S265).

⁶⁵ In discussing this relationship, interviewees and resistance materials highlight the large number of campaign donations made to prominent political parties - including the PT and PMDB - by construction companies (I8; I21). Of the top ten donors to political parties during the 2014 Presidential election, five were construction companies, including

example, a representative at an international environmental organisation (EO) described the projects as a “situation that was ripe for corruption to reign, to flourish” (I21). The same interviewee later explained “this project was perhaps not only a source of corruption, it was perhaps built because of corruption. It was justified in their minds by the fact that vast quantities of public funds would fall into their coffers” (I21). Furthermore, an interviewee from an international EO argued that Belo Monte represented a corrupt exercise, designed to benefit a limited few: “the two ruling political parties, the PT and the PMDB were essentially splitting the tips, they're splitting the corruption benefits, revenues from the companies who were getting these enormous contracts in thanks for their having run the project forward” (I21). This statement articulates the equivalence between the Belo Monte project and the floating signifier of political corruption to assert that it was corrupt practices uncovered by the Lava Jato investigation that explain the project’s construction. Furthermore, an article published by International Rivers argued:

As the investigations of Operation Lava Jato have revealed massive corruption within the Brazilian dam industry, the fundamental reasons for the federal government’s obsession with destructive dam projects... particularly during the administrations of Luis Inácio Lula da Silva and Dilma Rousseff – are becoming increasingly clear (S259).

This articulation - asserting the role of corruption as an explanatory factor for construction - was widely-discussed in interviews (I4; I6; I18; I20; I21). It is within the storyline of repoliticisation that, as one interview explained, the Belo Monte and São Luiz do Tapajós complexes becomes presented “part of a political project that has... the elite as the main... actor that would benefit from these choices” (I4). Resistance actors argued that it is these benefits, shared between political and private actors that resulted in the construction of the project, regardless of the grievances and demands voiced by local communities and the resistance coalition (I18; I20; I21; Q9; S195; S196; S226; S227; S228; S307). For example, domestic resistance actors have publicised a letter to Dilma Rousseff that argues that the closeness of this relationship has resulted in the construction of Belo Monte neglecting grievances and demands related to social justice and environmental sustainability (S307).

This act of articulation presents an alternative vision of Belo Monte. Rather than a technical, apolitical project of sustainable development - as described in the pro-dam storyline - Belo Monte is presented as both equivalent to and a result of the corruption scandal that represents a floating signifier in contemporary Brazilian politics (I4; I6; I11; I18; I21; Q14). In articulating this

Andrade Gutierrez (who donated R\$33 million), Queiroz Galvão (R\$ 25 million) and Odebrecht (R\$23 million) (De Toledo et al., 2014).

equivalence, resistance actors argued that it was this corruption that led to a context in which “the environmental laws, human rights standards... were being bulldozed to expedite this project [Belo Monte]” (I20). This statement, provided by a Federal Deputy who had spoken against the project, highlights the belief, held by resistance actors, that corruption not only led to Belo Monte’s construction but also drove it forward, regardless of its social or environmental impacts (I4; I6; I8; I20; I21; S307).

In arguing that corruption led to the construction of Belo Monte, regardless of its impacts, resistance actors critique the pro-dam storyline of sustainability, arguing that it represents a device of legitimacy for the corrupt planning and construction of Belo Monte. For example, one interviewee characterised pro-dam assertions of sustainability of the scheme as:

A political tool... a communications tool, a propaganda⁶⁶ tool to try to convince not just [the] Brazilian public but foreign investors that this is a good idea... It’s providing political cover to what is, in fact, an enormous fraud (I21).

In making this statement, the interviewee argues that the pro-dam storyline of sustainability is merely a legitimising device, forwarded by the pro-dam coalition to generate support for hydroelectric schemes in the Brazilian Amazon. The storyline of sustainability is described as a ‘political tool’, alluding to its adoption and wielding for a political purpose, with pro-dam actors consciously adopting this storyline to support the Belo Monte project. This statement represents a process of repoliticisation, rendering the political interests behind the projects studied visible by highlighting the links between them and wider questions related to the exposed corrupt relationship between Brazilian political actors and construction companies. Although the project’s own sustainability credentials are not questioned, the pro-dam storyline of sustainability is critiqued and positioned as legitimising the construction of a dam and the corrupt practices that surround it.

It is the articulation of the equivalence between the planning and construction of Belo Monte and the corruption scandal exposed by the *Lava Jato* investigation that represents the first element present within the storyline of repoliticisation. In emphasising the links between Belo Monte and corruption, resistance actors argue that the project’s construction was not in the name of ‘the national interest’ but, instead represented the narrow interests of political and commercial actors engaged in corrupt behaviour. In drawing on the floating signifier of corruption, resistance actors

⁶⁶ Although the use of the term ‘propaganda’ in Brazilian Portuguese can be translated to ‘advertising’, the use of the term in this context (with the interview conducted in English) leads to my understanding the meaning of the term in this way.

foreground the construction of hydropower in the Brazilian Amazon within an emergent political context that was based on the exposure of a corruption scandal and popular disillusionment with political actors. This represents a process of scaling up, linking the construction of the project to wider questions of national Brazilian politics. The articulation of the links between Belo Monte and Lava Jato has received increasing coverage in both national and international media reporting of the Belo Monte project (Calixto, 2016; Castilho, 2016; Chayes, 2017; O Globo, 2017b; Paraguassu, 2017). Resistance actors argue that, although they had reported on the potential of corruption in the Belo Monte project, it was not until the exposure of the scandal by the Lava Jato investigation that these concerns resonated with the wider Brazilian population. One interviewee, based at a domestic human rights NGO explained, “We have been calling everybody’s attention to that, but nobody heard that until the Lava Jato came and started to find out crimes and corruption” (I4). The exposure of this corruption constitutes a key site in the resistance against Belo Monte, allowing it to develop a wider resonance in a Brazilian society already protesting corruption. As the prominent journalist, Leonardo Sakamoto argued, it was the corruption scandal that finally turned popular opinion against the Belo Monte project (S269).

In summary, by articulating the equivalence between Belo Monte and the *Lava Jato* scandal - a floating signifier in contemporary Brazilian politics - resistance actors challenge pro-dam assertions of the technocratic, apolitical character of the project. Resistance actors critique the pro-dam storyline related to the ‘national interest’ by demonstrating the role of corruption within the Belo Monte project’s planning and construction and exposing how the project was not built for the good of the nation but represents the manifestation of a corrupt relationship between political and commercial actors. This highlighting of the political and corrupt character of both the Belo Monte and São Luiz do Tapajós projects is developed further within the resistance storyline of repoliticisation, with resistance actors asserting the links between the projects and the political actors’ commitment to their construction.

‘Development at all costs’

With the floating signifier of corruption articulated within the signifying chain of the storyline of repoliticisation, resistance actors engage in an additional act of articulation to explain the construction of the Belo Monte and São Luiz do Tapajós dam projects. This act of articulation highlights the personal and political commitment of a number of individual politicians to the respective projects to highlight a reason behind the pro-dam actors’ neglect of the grievances of local communities in the planning and construction of the dams studied (I4; I5; I6; I8; I15; I20; I21; Q8; Q13; Q14; S173; S256). Within this act of articulation, the projects are presented as equivalent to - and symbolic of - the policies and principles of the government of the Partido dos Trabalhadores (Workers’ Party, PT) and Presidents Lula and Dilma, who successively governed Brazil between 2003 and 2016 (I4; I6; I11; I18; I21; Q13). In articulating this equivalence,

resistance actors challenge the pro-dam storyline of sustainability, arguing that the projects, instead, represent the pursuit of the political and economic goals of a particular political group.

In explaining this commitment to hydropower projects, resistance actors articulate the equivalence between the Belo Monte and São Luiz do Tapajós projects and the political goals of President's Lula and Dilma (I4; I6; I8; I18; I20; I21; S256). The hydropower projects are presented as “the head carnival float for the party. The showcase... to show that the party, the President... [is] helping Brazil develop and so forth” (I18). As one interviewee based at the Brazilian arm of an international EO, argued, the announcement of hydropower projects occurred during election years:

When Lula wanted to [be] re-elect[ed], he launched the Madeira dams... When Dilma came, she launched Belo Monte... When they wanted the second term of Dilma... [São Luiz do Tapajós]. It was so weird... In twelve years, they had three big dams to launch exactly in the election year[s] (I7).

In making this statement, the resistance actor articulates the equivalence between the construction of a number of hydropower projects - including the Madeira river dams (completed in 2012) - and the electoral goals of the PT. This equivalence repoliticises the respective projects by foregrounding them within *the political*, represented by the agonism of partisan politics and political elections. Within this statement, the pro-dam storyline of economic benefits is asserted to generate popular support for the government building them, allowing electoral success (I7). In light of this deemed political and electoral importance of hydropower projects in Brazil, resistance actors articulated an equivalence between the Belo Monte and São Luiz do Tapajós dams and the policy and politics of the PT. Resistance actors defined the economic doctrine of the PT government as representative of a policy of ‘development at all costs’, with the aim of economic development pursued with limited concern for social or environmental impacts or dissent from local populations (I1; I3; I4; I8; I11; I21; Q4; Q7; Q11; Q12; Q14).⁶⁷

Resistance actors articulate this equivalence to highlight how pro-dam actors, within the PT, have exerted political influence to ensure the realisation of the Belo Monte and São Luiz do Tapajós

⁶⁷ Resistance actors argue that this economic doctrine of ‘development at all costs’ is rooted in the history of the party, founded by trade unionists, which had led to policies based on the “logic of lifting the working class out of poverty, providing them with opportunities and spending public funds to do so” (I20; I4; I8; I16; I21). A number of interviewees highlighted the similarities between the policies of the PT government and the ‘high modernism’ that characterised processes of dam construction in the 20th century. As one interviewee explained, “It's exactly like ‘progress’ is having big roads, big dams... A society's progress or capacity can be measured by the capacity that it has to construct huge works of engineering... And they truly believe in that” (I8).

projects, regardless of their respective impacts (I4; I6; I18; I21; S32; S67; S149). Resistance materials have argued that political pressure was applied to technical staff in IBAMA, resulting in the construction of Belo Monte without addressing of consequences of construction (S32; S67; S149).⁶⁸ For example, the prominent anti-dam activist, Telma Monteiro, has accused Lula of ignoring the advice and information on environmental impacts that have been provided by scientists and researchers (S225). Similarly, one interviewee highlighted that members of the PT government had restricted the publication of a report that demonstrates how Belo Monte will be affected by the flow of the Xingu being reduced by future climate change (I18). In highlighting these examples, resistance actors assert the political agency of pro-dam actors, with the proponents of Belo Monte and São Luiz do Tapajós asserted to be driving the projects forward with little attention paid to dissenting views.⁶⁹

A prominent example provided by resistance actors to highlight the pro-dam coalition's commitment to the Belo Monte project concerns the Brazilian response to the 2011 decision of the Inter-American Commission on Human Rights (IACHR)⁷⁰ to request the suspension of Belo Monte's environmental licensing process, due to its effect on the indigenous populations of the region (I4; I8; I21; Q9). In response to this decision, the Brazilian government withdrew its candidate for a seat on the commission, withheld its annual payment from the Organization of American States and threatened to leave the organisation entirely (S93). The IACHR rescinded the decision soon after. This episode is presented by resistance actors as indicative of the undemocratic context in which the projects were developed, with no room for dissent (I4; Q9). For example, one interviewee explained, "Belo Monte was a very important government decision... The [PT] government said "Belo Monte is a decision" and [this] never changed" (I11). In making this statement, the resistance actor illuminates the political commitment to the Belo Monte project, arguing that pro-dam actors pursued the project unilaterally, with limited opportunity for alternative voices.

In discussing the political commitment to the projects studied, numerous resistance materials referred to the words of Lula made at a 2009 meeting, in which he promised that "Belo Monte

⁶⁸ In 2009, two senior officials at IBAMA - Sebastião Custódio Pires and Leozildo Tabajara da Silva Benjamin – resigned from their roles in the organisation, complaining of high levels of political pressure to approve the Belo Monte project. Two years later, IBAMA President Abelardo Bayma Azevedo also resigned (S67; S92; S149).

⁶⁹ It is notable that resistance actors did not highlight another prominent example of the pro-dam coalition acting to ensure that the São Luiz do Tapajós dam would be built. In January 2012, the Brazilian government published a provisional measure that reduced the area of four conservation units in the Amazon basin, including a protected area in the Tapajós basin that was expected to be impacted by any dams built in the region. However, this action was undiscussed by resistance actors and remains in the field of discursivity.

⁷⁰ The Inter-American Commission on Human Rights is an autonomous organ of the Organization of American States, tasked with the protection and promotion of human rights in the region.

will not be shoved down anyone's throat" (S78; S173; S297). This statement has become a central narrative device in the resistance to the Belo Monte project, with resistance actors highlighting Lula's failure to keep his promise (I6; I21). For example, a letter to President Lula in 2010, organised by Amazon Watch and signed by numerous international NGOs, argued that:

Regardless of these concerns from your fellow Brazilians and your earlier promises to them, we see that your government indeed intends to *shove Belo Monte down the throats* of the directly affected Indigenous and riverine communities in the Amazon (S256, italics my own).

Within this statement, Lula's words become rearticulated to highlight how the project would be realised, regardless of the demands and grievances of resistance actors (I6; I21; S256). Similarly, resistance materials have quoted the words of Lula, who argued that the Belo Monte project would be completed "*na lei ou na marra*" (by fair means or foul) (S1; S32). This rearticulates Lula's words, originally adopted to describe the economic benefits of the scheme, to describe how pro-dam actors, including Lula, had planned and built the project with little concern for views of those opposed to be impacted (I4; I6; I21; Q14). The commitment to the Belo Monte and São Luiz do Tapajós projects by the governments of Lula and Dilma is presented as representative of a 'steamroller' has neglected the social and environmental impacts of the project (I1; S23; I18; I21; Q8; Q12; Q14; S63; S71; S77; S78; S173; S256; S297; S299; S300). As one interviewee described "They [the PT] basically rammed Belo Monte through, despite vast opposition within Brazil itself and from the international community" (I3). This echoes the words of Bishop Kräutler who, when accepting his Right Livelihood Award in 2010, highlighted his belief that the Belo Monte project was driven forward with little concern for the project's impact: "The Belo Monte Project appears to be sacrosanct, unquestionable and assumes the air of being a veritable historical subject. Human beings, families and communities are no longer protagonists of their own history" (S182). In highlighting these links, resistance actors argue that the PT's continued commitment to the Belo Monte project has resulted in the restriction of the agency of those protesting against it, with their grievances and demands ignored by the pro-dam coalition.

In highlighting this political commitment to the projects studied, resistance actors challenge the storyline of sustainability forwarded by pro-dam actors by arguing that the political interests supporting the project have done so with little concern for the social and environmental impacts of its construction. Whilst the paradigmatic concept of sustainable development is based on the relations between three pillars - social development, economic development and environmental protection - the words of resistance actors highlight how the former two pillars have been neglected in the name of the latter, with little room for dissent based on environmental or human rights concerns (I4; I6; I8; I20; S141). For example, an interviewee at an international EO argued:

“The environmental laws [and] human rights standards that are written into either legislation or [the Brazilian] Constitution were being bulldozed to expedite this project” (I21). In making this statement, the interviewee is arguing that pro-dam actors paid limited attention to addressing concerns related to environmental or social impacts of the projects studied. A number of other resistance actors have also highlighted this lack of concern, contrasting the economic development promised by pro-dam actors with the environmental and social impacts of the project (I4; I6; I8; I20; S141). For example, a respondent based at a regional human rights organisation argued that the Belo Monte project was “an ecologic[al] and human tragedy, where the absolute priority was given to ‘economic development’, not to social wellbeing or nature preservation” (Q9). In making this statement, the resistance actor highlights a common grievance of opposition networks: that the projects are not only environmentally and socially damaging but have been planned and built with limited interest in mitigating such impacts (I6; I7; I8; I11; I18; I21).

When discussing the limited concern that the pro-dam coalition had for the social or environmental impacts of the Belo Monte and São Luiz do Tapajós dam projects, resistance actors made reference to the political agency of President Dilma Rousseff (I14; I18; I21; Q8; Q14). Within the resistance storyline of repoliticisation, Dilma is presented as having an agency in the construction of the Belo Monte project (I3; I5; I14; I18; I20; I21). Before being elected as President in 2013, Dilma served as both Minister of Mines and Energy (2003-2005) and Chief of Staff of the Presidency (2005-2010) in Lula’s administration. Interviewees argued that, within these roles, hydropower construction became a “pet issue” for Dilma (I3).⁷¹ The construction of Belo Monte, in particular, is presented as synonymous with Dilma’s political career (I3; I4; I5; I14; I17). One interviewee went as far as to label Dilma as “the mother of Belo Monte” (I20).⁷² A number of resistance actors characterised Dilma’s agency as a stubbornness, with the former-President unwilling to hear dissent from either the local population or resistance actors. For example, a resistance actor discussed an episode in which Dilma demonstrated this stubbornness, in a meeting with Antônia Melo of *Xingu Vivo*, arguing that the meeting “ended with Dilma punching the table and shouting that Belo Monte would most definitely be built” (Q8). In presenting this episode, the resistance actor highlights both Dilma’s commitment to the project and her agency in ensuring its construction. As a Brazilian journalist, who had written extensively on infrastructure projects in the Amazon, explained:

⁷¹ Dilma has been described as technocratic and focused on the construction of hydroelectric dams to provide energy for the national grid (Saad-Filho & Morais, 2014). As one interviewee highlighted “her mindset is very much in favour of this kind of solution for energy generation, electricity generation. It’s the culture of the electrical sector in Brazil ... [build a] big dam, it has always been” (I5).

⁷² This presentation of Dilma Rousseff as a matriarchal figure also occurs in pro-dam storylines, with the President labelled the “Mãe da Energia” (‘Mother of Energy’) by Federal Deputy Paulo Bornhausen (S40).

[Dilma] was really, really important because of the way that she thinks of the [economic] development of the country. I think that is why they had to build it in any way possible, regardless of [the] opposition (I16).

Within this characterisation, Dilma becomes cast as a key agent in ensuring the projects moved forward. The asserted equivalence between the Belo Monte and São Luiz do Tapajós dams and the political career of Dilma is articulated with a particular reference to Dilma's implication in the *Lava Jato* investigation and subsequent impeachment in 2016. In response to these events, resistance actors continued to articulate the equivalence between the Belo Monte project, Dilma's political career and the *Lava Jato* investigation (I14; I15; I16; S15; S312). For example, an article written by representatives of Amazon Watch in 2016 argued that:

The Dilma administration pressed on in its relentless efforts to make the Belo Monte monstrosity a symbol of her administration. Ironically, it has now become a symbol of her administration's corruption (S15).

Within this statement, Dilma's commitment to the project is presented as symbolic of the illegal and corrupt character of Belo Monte, with the project representing "the beginning of the [her] government's fall" (I14). In discussing the dam project, resistance actors discussed visits that Dilma had made to the Belo Monte construction site (I15; I16; S312). For example, when Dilma visited the site to inaugurate the project, in her last week in office, Xingu Vivo wrote an open letter to her, comparing Dilma's impeachment to their own treatment by pro-dam actors. The letter, the title of which translates as 'They do to you what you have done to us', argued that Dilma's claims of injustice regarding her impeachment should fall on deaf ears, just as *Xingu Vivo*'s grievances had been ignored by the PT government (S312). Furthermore, resistance actors present Dilma's visits to the Belo Monte site as symbolic of Dilma's political commitment to the Belo Monte project, describing a 2014 visit as representing her personal pride in the project's completion (I15; I16). As one interviewee highlighted, in the 2014 Presidential campaign, "I noticed that it was the only place where she smiled" (I15).

The articulation of the equivalence between the projects studied and political career of Dilma draws from a wider contestation surrounding the politics and economic policies of the PT evident in the June Days (I3; I4; I5; I6; I8; I18; I21). The PT had provided a political home for many social and environmental activists, drawn by the party's message of radical democracy and grassroots action (Branford and Kucinski; 1995; 2003; Hochstetler & Keck, 2007; Hunter, 2010; Levy, 2013; Saad-Filho & Morais: 2014; Baletti, 2016). It was this role of the PT as a historic home for social movements and civil society that acted as a 'wedge', dividing opposition to government policy (I8; I15; I20). As an interviewee from a national EO explained:

You have this very sensitive arrangement of the relationship between the [PT] government, that was in power for 13 years and how they related to social movements and civil society - which made, somehow, the criticism more difficult. It was harder to criticise them (I11).

In making this statement, the interviewee highlights how the historic links between resistance actors and the PT may have restricted opposition, with a loyalty to Lula and Dilma limiting criticism (I11). However, the period of political change since 2013 was presented by many respondents as representative of the expression of a popular frustration with the PT government (I1; I3; I4; I6; I11). The *Jornadas de Junho* represented the dissolution of its alliances between the PT and social movements, as well as collapsing popular support, with numerous groups, previously allied to the PT, opposing the government's policies (Baletti, 2016; Loureiro & Saad-Filho, 2018).

In summary, resistance actors subvert the pro-dam assertions of the equivalence between the dams studied and notions of economic development to present an alternative storyline of the planning and construction of the Belo Monte and São Luiz do Tapajós projects. This storyline reconfigures the links between the projects studied and the promise of economic benefits present in the pro-dam storyline. The economic benefits promised by pro-dam actors are rearticulated to represent a political commitment to the planning and construction of hydropower projects, regardless of their social and environmental consequences or the dissent of the local population. The articulation of this equivalence between the projects studied and the commitment of Lula and Dilma illuminates the political interests behind the dams and reground the resistance to them in *the political*.

'By hook or by crook'

In illuminating how the Belo Monte and São Luiz do Tapajós dams are planned and built with limited concerns for impacts or dissenting opinions, resistance actors articulate the equivalence between the Belo Monte project and the infrastructure projects of the military junta that ruled Brazil between 1964 and 1985. During this period, the military junta planned and completed a number of development projects that are widely understood to have neglected both human rights and social and environmental impacts, including the *Rodovia Transamazônica* (Trans-Amazon Highway) and the *Projeto Grande Carajás*, which included the Tucuruí dam. With the initial plans for Belo Monte originating in the 1970s and the era of the military junta in Brazil, opposition materials present the project as a scheme that was "designed by the military [dictatorship]" (I4; S225; S261; S275). The element of the military junta provides a privileged sign (or nodal point) in the signifying chain articulated by resistance actors - with additional signs related to the criminalisation of opposition and a disputed legal mechanism organised in relation to it.

In articulating the equivalence between the projects studied and those of the military junta, resistance actors assert the authoritarian character of how contemporary dam projects in Brazil have been planned and constructed (I11; I16; I17; S79; S181; S225; S275). For example, the theologian Leonardo Boff has written that the Belo Monte project represents a return to the military dictatorship, with contemporary infrastructure projects demonstrating the same rationale as those of the junta (S39). One interviewee explained:

Brazil today is just the same as [when] we were at the beginning of the dictatorship... twelve years of a government that was supposed to be more progressive, left-wing... In some senses, we are still the same country and we haven't learnt from our previous mistakes (I16).

In articulating this equivalence, resistance actors argue that history has not progressed and that the Belo Monte and São Luiz do Tapajós projects represent a regression to the flaws of the past (I16; I17; I18; Q9; Q11; S79).

The articulation of this equivalence incorporates two additional elements into the resistance storyline of repoliticisation. First, resistance actors highlight the use of intimidation and violence to stifle potential opposition to their planning and construction of the Belo Monte and São Luiz do Tapajós projects and (I4; I6; I21; I14; S76; S231).⁷³ For example, *Xingu Vivo* disseminated materials reporting that a number of its members were arrested in 2012 for blockading the road leading to the construction site (S312). The activists were later banned from protesting near the construction site (S312). Similarly, members of the Munduruku community have reported the increased presence of police in the region of the Tapajós river basin, described as an attempt to intimidate potential opponents to the projects in the region (S42). Resistance actors have described these actions as representative of efforts by the pro-dam coalition to criminalise local resistance groups, stripping actors of their ability to protest the respective projects (S42; S308). For example, a local anti-dam campaigner characterised the period of Belo Monte's construction as "avalanches of attempts at intimidation, criminalisation and lawsuits against [resistance] leaders who resisted the project" (Q14). In making this statement, the resistance actor illuminates the political character of the Belo Monte project by highlighting what is deemed as the undemocratic nature of their construction, arguing that resistance actors were criminalised and cast as illegitimate and existing outside of the political community (I4; I6; I8; I21; Q9; Q11).

⁷³ Violence has claimed the lives of activists in the region, with the 2001 assassination of Ademir Alfeu Federicci (Dema), a leader of the opposition to the Kararaô and Belo Monte projects.

Resistance materials have profiled how high-profile members of the opposition against Belo Monte, such as Dom Erwin Kräutler and Antonia Melo (S249; S297) have faced threats of violence from unknown parties. A local resistance actor, opposed to Belo Monte, explained, in response to threats of violence, that their house now has bars fitted on its windows (Q14). The equivalence between the projects studied and the violent suppression of opposition is further articulated by resistance actors highlighting how Brazilian military units have restricted opposition and reported to have fired rubber bullets at indigenous protesters and violently broken-up workers demonstrations (S3; S76; S208; S231). Resistance actors have argued that this use of military force to subdue resistance demonstrates how the government was intent on completing the respective projects, regardless of the grievances of the local resistance movement (I4; S76). A prominent critic of hydropower in the Amazon, Bianca Jagger has argued, “The people of the Xingu are being silenced with military force. Not because they are a threat, but because their protests halt construction” (S180). In making this statement, Jagger is asserting the demonisation and violent exclusion of those figures opposing the Belo Monte project, with the demands and grievances of these figures deemed illegitimate.

This criminalisation of resistance networks is compared to the historic actions of the military junta (I4; I6; I8; I21), articulating an equivalence between the dams studied and a history of forced disappearances, state-sanctioned torture and repressive regime that characterised its period of rule. For example, an interviewee from a Brazilian EO explained to me that “the way Belo Monte was implemented... is very similar to the way that the military dictatorship has implemented the other infrastructure projects in the [19]70s on that same region” (I11). Resistance actors articulating this equivalence drew attention to a number of reports of pro-dam actors infiltrating resistance groups to stifle their opposition (I4; I21; Q14; S282). For example, resistance materials reported on an episode in which a man, who later admitted to having been hired by the *Consórcio Construtor Belo Monte*, was found in a February 2013 meeting of *Xingu Vivo*, recording the discussions of Antonia Melo and other local resistance actors (S105; S121; S308). This discovery was presented by *Xingu Vivo* as an example of the increased criminalisation of the resistance movement, with the organisation making direct allusions to the experience of many activists during the military dictatorship (S309).⁷⁴ Similarly, the opposition journalist Ruy Sposati has accused the government of directing the *Agência Brasileira de Inteligência* (Brazilian Intelligence Agency, ABIN) to conduct surveillance on indigenous leaders and NGOs engaged in opposition to the Belo Monte and São Luiz do Tapajós projects (S282). Resistance materials have provided

⁷⁴ The discovery of surveillance at the Xingu meeting resulted in a great deal of suspicion of outsiders within local resistance movements. This was evident in how one local group, campaigning against the São Luiz do Tapajós project accused me of being a spy for the *Grupo do Estudos Tapajós*. Although these concerns were eventually allayed, this episode represents the degree of suspicion directed, held by local resistance groups, towards those deemed ‘outsiders’ to the contemporary resistance movement, as a result of this criminalisation of opposition groups.

evidence to support Sposati's claim, with ISA reporting on how ABIN had identified a number of international NGOs⁷⁵ working in Brazil for investigation (S22).⁷⁶ The *Movimento dos Atingidos por Barragens* (Movement of Dam-Affected People, MAB) has argued that this activity represents the continuation of the policies of the dictatorship, with the Belo Monte project undergoing a process of militarisation designed to restrict opposition (S76; S231). In articulating the equivalence between the Belo Monte and São Luiz do Tapajós projects and the repression of opposition, resistance actors argue that the contemporary projects are implemented in a similar manner to those of the military junta: with the state security apparatus used to criminalise opposition activities (I11; I21; S309).

Resistance actors highlight how the repression of dissent is not only evident in the criminalisation of resistance actors but also in the circumvention of legal institutions in Brazil. The second element positioned in relation to the equivalence between the Belo Monte and São Luiz do Tapajós dams and the projects built by the historic military junta is related to the use of *Suspensões de Segurança* ('security suspensions') by the pro-dam coalition. This legal instrument is adopted by the judiciary to reverse decisions that had been made at a lower court, overriding individual or collective rights in the name of the national interest, social order or economic security. For example, a judge on the federal circuit may appeal to this mechanism to overrule decisions made at local or regional courts. Once the proclamation is made, it cannot be challenged - with the right to appeal suspended by the decision.

With the *Ministério Público Federal* (MPF) referring 25 lawsuits against the Belo Monte project between 2001 and 2016,⁷⁷ the security suspensions represent a judicial resource appealed to by pro-dam actors to overturn legal decisions that suspend, delay or cancel Belo Monte's construction. In the case of Belo Monte, security suspensions have been used to overturn previous decisions that have called for the suspension of the project's construction (Fleury, 2014). The use of a security suspension represents the depoliticisation of the project regarding which the decision is made. It raises the project above both legal procedure (as evident in its restriction of the right of appeal) and *the political* (in its declaration of a project as being in the 'national interest').

⁷⁵ The international non-governmental organisations included within this surveillance included Amazon Watch, International Rivers, Greenpeace, Inter-American Association for Environmental Defense (AIDA), Friends of the Earth, World Wildlife Fund (WWF) and Avaaz (S22).

⁷⁶ This history of infiltration provided a topic of humour when conducting an interview at the offices of a domestic NGO in Rio de Janeiro, our discussions were interrupted by the repeated drilling into a wall in a nearby office. After the fourth occurrence of this noise, an interviewee joked "I think that they are from Odebrecht" (I4).

⁷⁷ These cases include complaints about inadequate consultation, methodologically-flawed Environmental Impact Assessments and the failure of Norte Energia to meet the conditionalities of its license.

Resistance actors challenge the use of security suspensions in the construction of the Belo Monte dam (I11; I14; I18; Q9; Q11). The use of security suspensions is presented as evidence of the circumvention of democratic practice by a corrupt pro-dam coalition intent on building hydroelectric dams in the Brazilian Amazon (I11; Q9). For example, one respondent labelled the security suspension “a political decision that neutralises justice.” Similarly, an interviewee argued that the mechanisms represented a “way of eluding [the] rules... It’s a way to enable you to do anything, in any way” (Q9; I11). In articulating this equivalence, resistance actors present the use of these mechanisms as “a scam... in order to benefit the public power [defined as the Brazilian government], in alliance with the companies behind big projects” (Q9). In defining the use of security suspensions as a ‘scam’, the respondent highlights the belief of many in the resistance coalition that these mechanisms both allowed and legitimised the corrupt relationship between Brazilian political actors and the construction sector evident in the Belo Monte project (I18; I20; I21; Q9; Q11; S79).

In articulating an equivalence between security suspensions and the *Lava Jato* investigation, resistance actors expand the alternative vision of the reasons behind the construction of the Belo Monte project, characterising it as for the benefit of the few, rather than for the economic development of Brazil, as asserted in pro-dam storylines. As one interviewee at an international environmental organisation argued, the use of security suspensions:

Smacked as a pretence... to run the project forward to the benefit of the companies who are building it, who are not investing in it. They are simply the ones earning the massive contracts... and also the politicians who were making sure that this project [Belo Monte] moves forward by hook or by crook (I20).

Within this statement, the interviewee challenges the assertion of the ‘national interest’ within both the pro-dam storyline and the use of security suspensions highlighting the links between the project and the *Lava Jato* investigation and directly dismiss the arguments of ‘national interest’ that are present within the judicial decisions that suspend previous judgements against the Belo Monte project (I21). The security suspensions are presented as “the manipulation of the justice system... to legitimate a project of dubious legality” (Q9). Similarly, an interviewee at a domestic environmental organisation described how the use of security suspensions represented “the limit of the democratic institutions [of Brazil]”, with democratic protest, state institutions and appeals to human rights had been unable to adequately defend local populations from the impacts of the schemes (I11). In making these statements, resistance actors present Belo Monte as both a corrupt enterprise and the circumvention of democratic and legal norms and institutions in Brazil, with the judiciary reduced to a route of legitimacy for the pro-dam coalition and the opposing party has no real opportunity to reverse these decisions (I4; I8; I11; I21; Q9).

In discussing the pro-dam coalition's use of security suspensions, resistance actors also assert an equivalence between the pro-dam storyline of the 'national interest' and the military junta that ruled Brazil between 1964 and 1985 (I6; I8; I11; I4; I15; I18; S113; S181; S275). This draws on the history of the security suspensions, which date back to the years of the military dictatorship and Law 4,348/1964, which allowed for the suspension of judicial decisions when justified by a doctrine of national security or the national interest.⁷⁸

In highlighting these links, resistance actors link the contemporary pro-dam coalition to the hydroelectric projects built in the years of the Brazilian military dictatorship (I16; I17). By extending this equivalential chain to absorb the element related to the 1964-1985 military dictatorship, the resistance storyline of repoliticisation is forwarded to challenge notions of the 'national interest' and render visible the undemocratic character of the projects studied. Resistance actors argue that "the building of those dams [Belo Monte and São Luiz do Tapajós] is not so different from the ones that were built in the 1970s" (I16). This illuminates the political character of the projects, highlighting the equivalence between the projects and an atmosphere that delegitimises the opposition of local communities and forces the projects forward, regardless of the grievances of those affected (I4; I6; I11; I21; Q14).

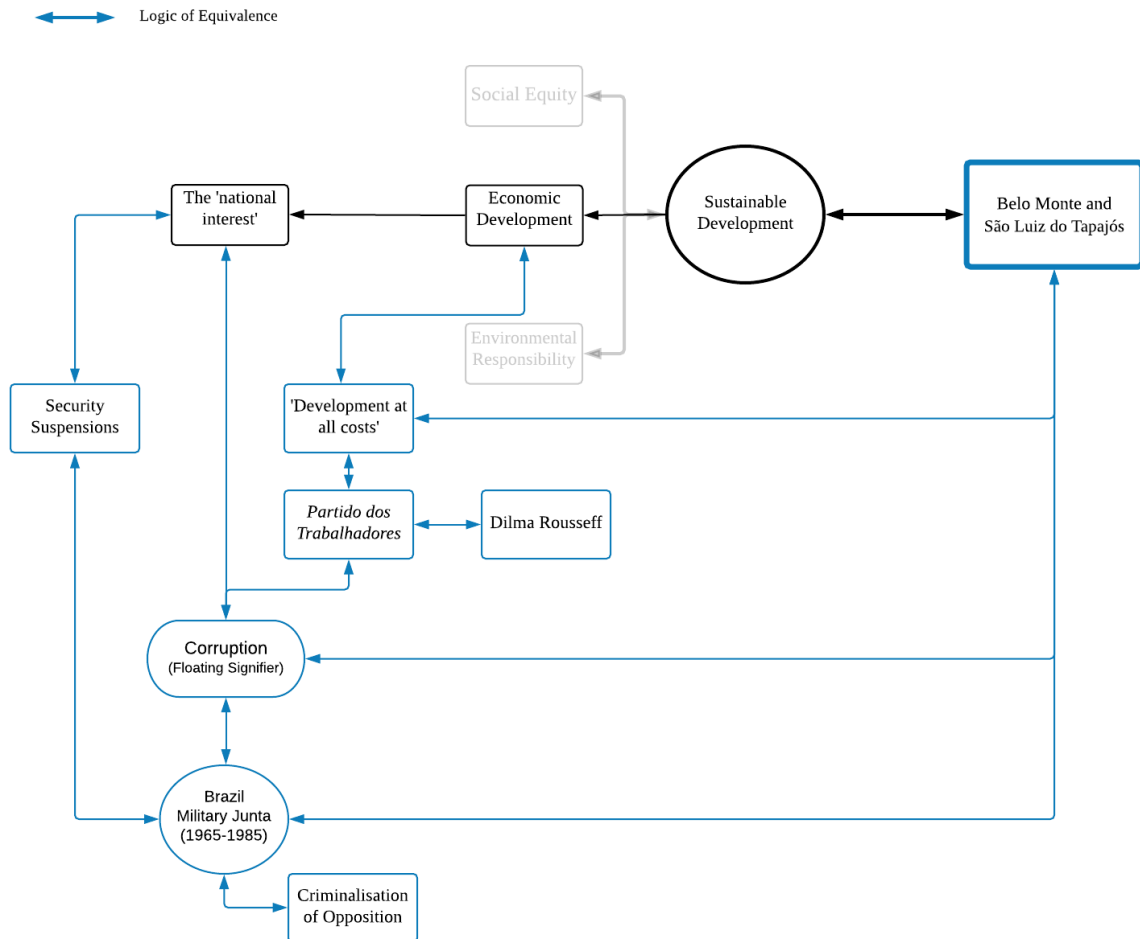
Conclusion

This chapter has focused on the storyline of repoliticisation forwarded by resistance actors. In forwarding this storyline, resistance actors articulate the equivalence between the Belo Monte and São Luiz do Tapajós dam projects and an emergent politics of dissent and disillusionment in Brazil, rendering legible the political interests, policies and individuals that are committed to the respective dam's construction. This acts to repoliticise the projects, highlighting their political character and providing an alternative vision of the reasons behind their construction. I have identified three primary acts of articulation. These are: 1) the equivalence between the Belo Monte project and the emergent floating signifier of corruption in Brazilian politics, based around the discoveries of the *Lava Jato* investigation; 2) the highlighting of the political capital committed to the two projects by Presidents Luiz Inácio Lula da Silva and Dilma Rousseff; and 3) the equivalence between the projects studied and the policies of the military dictatorship as a nodal point, with additional elements related to 'security suspensions' and the criminalisation of

⁷⁸ This initial 1964 law was focused on the suspension of individual rights to guarantee national security or development, – if an action or project was deemed to be in the national interest. During Brazil's transition to democratic rule, this injunction was extended to apply to collective rights (Law 8,437/1992). The law was further updated in 2001, under President Fernando Henrique Cardoso (1995-2003). According to this updated law, judicial decisions and injunctions that were deemed as against the national interest could be suspended by a judge at a higher court.

opposition positioned around it. The positioning of - and relations between - these elements is illustrated in Figure 4 below.

Figure 4: A storyline of repoliticisation



Taken together, these respective acts of articulation constitute a resistance storyline that disputes the pro-dam storyline related to the economic benefits promised by the projects, as well as the dams being in the national interest, with resistance actors relocating the projects in a political context of corruption, authoritarianism and the suppression of dissent. Resistance actors articulate the equivalence between these elements to highlight the difference between the concept of sustainable development and the Belo Monte and São Luiz do Tapajós projects, challenging the depoliticised role of the projects and to expose how the pro-dam storyline of sustainability legitimises projects that are guided by corruption and political interests. Within the storyline of repoliticisation, resistance actors illuminate the political interests that underpin the planning and construction of the projects - with a particular reference to the links between Belo Monte and corruption - and whose commitment pushed the projects forward, regardless of their respective impacts.

Chapter 6

A storyline of impacts

In this chapter, I turn my attention to how, in response to the dissemination of official environmental impact assessments (EIAs) for the projects studied, resistance actors in domestic and international EO's have forwarded a storyline of impacts. In forwarding this storyline, resistance actors articulate a chain of equivalence that links the Belo Monte and São Luiz do Tapajós projects studied to a number of social and environmental impacts - such as socio-economic impacts in the city of Altamira, located near the Belo Monte construction, deforestation and the emission of greenhouse gases (GHGs) - to highlight additional consequences that are addressed in neither the pro-dam storyline of sustainability or official environmental impact assessments of the projects.

The articulation of the relations between these elements represents a reconfiguration of the dominant storyline of sustainability, with the sustainability of the projects linked to a number of additional impacts, absent from the official assessments (and the pro-dam discourse that these documents represent). With these impacts remaining unaddressed in the pro-dam storyline of sustainability, these elements are found in the field of discursivity and presented by resistance actors to 'scale up' their resistance to the projects, with local grievances (such as those related to socio-economic impacts) articulated alongside national and global storylines of deforestation and climate change mitigation. In doing so, resistance actors illuminate impacts - deemed understudied or neglected in official assessments - to challenge the sustainability of the Belo Monte and São Luiz do Tapajós projects.

This chapter is divided into four sections. In the first, I introduce the importance of the environmental licensing process - and the provision of Environmental Impact Assessments - in the interplay between pro-dam and resistance storylines, before profiling how resistance actors have challenged these official assessments. I then move on to discuss the elements articulated within the resistance storyline of impacts. In the third section, I discuss how resistance actors have presented the social and economic impacts of the Belo Monte project to render visible the numerous changes that have occurred in the city of Altamira. In the fourth section, I examine how the resistance coalition has widened the horizons of impact assessment to include discussions of indirect deforestation. In the final section, I discuss an emergent act of articulation related to greenhouse gas emissions.

Environmental Impact Assessments in Brazil

An environmental impact assessment (EIA) is a document that determines the impacts of the construction of a project, as well as outlining the necessary acts of mitigation (Lawrence, 2003). In Brazil, the development of an EIA contributes to the environmental licensing process, which provides regulatory approval for the infrastructure in question. The licensing process consists of three stages: (1) the *Licença Prévia* (preliminary license) approving the location and allowing for the beginning of planning; (2) the *Licença de Instalação* (construction/installation license) authorising the start of construction; and (3) the *Licença de Operação* (operating license) allowing for the beginning of operations. Licenses are provided by *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (IBAMA), with the process also open to input from the *Ministério Público Federal* (MPF) and the *Fundação Nacional do Índio* (FUNAI).

The EIA document is formulated and presented by the companies involved in the respective project before the provision of the preliminary license. Two documents are provided: the Environmental Impact Study (*Estudo de Impacto Ambiental*, EIA) and the shorter, public-facing Environmental Impact Report (*Relatório de Impacto Ambiental*, RIMA). The studies required within the EIA-RIMA can be divided into three categories - exploring the physical environment, biological and natural ecosystems and the socio-economic context. These documents are presented to determine the approval of the project, as well as any potential conditions and/or mitigation measures to be completed during the process of project construction and implementation.

Contesting official assessments

Due to its role in assessing social and environmental impacts and approving a particular project, the environmental licensing process provides an important site in the development (and contestation) of the pro-dam storyline of sustainability. It is within the environmental licensing process that potential issues are identified, mitigative measures provided and the sustainability credentials of a project are defined in relation to existing environmental policy and regulations. As a result, the provision of an environmental license provides support for a pro-dam storyline that asserts the sustainability credentials of the project, due to the process' clarification that a project is being planned and built in accordance with contemporary legislation and norms (Atkins, 2018a). For example, when asked about the environmental sustainability of the project, an employee of the owner of Belo Monte, Norte Energia explained that it was not the company that defined the project as sustainable but the licensing process, arguing that “the evaluation of the environmental [impacts] ... is IBAMA's work... If the government can provide a license, we are a sustainable project” (I19). In making this statement, the interviewee highlights the importance of the environmental licensing process - and, with it, the EIAs - in defining a project's

sustainability, with the belief that the provision of a license confirming its environmental credentials.

However, EIAs have been criticised as adopting a technocratic language and worldview, resulting in the exclusion of the voices and grievances of local communities from the analysis contained within (Owens et al., 2004; Jay et al., 2007; Devlin & Yap, 2008; O'Faircheallaigh, 2010; Aguilar-Støen & Hirsch, 2014; Zhouri, 2015; Eren, 2017; Spiegel, 2017; Ritter et al., 2017). This exclusion of local communities is evident in the scale of these documents, with EIAs frequently running to thousands of pages and numerous volumes, restricting the document's accessibility to those impacted (Zhouri, 2015).⁷⁹ With the worldviews of those formulating the EIA differing significantly from those of the communities to be affected (O'Faircheallaigh, 2010), this limited accessibility results in the exclusion of impacts (and, with them, grievances) that are deemed unnecessary by those responsible for these assessments. For example, the official EIAs of the Belo Monte and São Luiz do Tapajós dams divide the respective project's impacts into areas of 'direct' and 'indirect' influence, with those 'indirect' influence deemed beyond the remit of the mitigation strategies and giving rise to inadmissible grievances.

In light of these excluded impacts, a key tactic of opposition to the Belo Monte and São Luiz do Tapajós dams was the contestation of the methodology and content of the official EIAs of the respective projects (published in 2009 and 2014 respectively) (I6; I11; I18; I20; I21; S5; S7; S137; S141; S250).⁸⁰ For example, an interviewee based at the Brazilian arm of an international EO explained that the opposition the São Luiz do Tapajós project involved “working towards [discrediting] the Environmental Impact Assessment, to make it either invalid or to cancel it - so that the government denies it [cancels the project]” (I6). In making this statement, the interview highlights a privileged sign (or nodal point) within the storyline of impacts, related to the critique of official assessments of the projects' impacts. In discussing the projects studied, resistance actors often disputed the validity of the official EIAs, arguing that the analysis contained within the respective documents was both incomplete and methodologically lacking and by disseminating alternative assessments (I6; I21; S139; S141; S189).

⁷⁹ The scale of these documents was evident during my time in Brazil. Upon entry to the Department of Environmental Licensing at FUNAI, I was shown the official documents related to FUNAI's contribution to the EIA for the Belo Monte project. “This is Belo Monte,” said an employee, pointing to six piles of paper tied together with string – each at least one foot high, sitting across two full-size desks (Observation, 10/11/2016).

⁸⁰ The Belo Monte EIA was completed by a technical group consisting of the MME, the Federal Government, Eletrobras and the construction companies of Andrade Gutierrez, Camargo Corrêa and Odebrecht (S95). The research for this document was not completed by these parties but was outsourced and completed by LEME Engenharia (a subsidiary of GDF Suez). The Tapajós EIA was completed by CNEC Engenharia, a Brazilian engineering company owned the Australian company, WorleyParsons (S146)

In the wake of the publication of the respective EIAs of the Belo Monte and São Luiz do Tapajós projects, environmental organisations opposed to their construction published a number of alternative assessments. For example, following the publication of Belo Monte's EIA in 2009, a panel of experts - mainly drawn from the Brazilian scientific community - engaged in an extensive critique of the official assessment of Belo Monte's impacts (S188). Similarly, in response to the publication of the São Luiz do Tapajós EIA in 2016, the International Rivers organisation organised and published *Ocekadi*, an extensive document that provided a series of arguments by Brazilian academics on the São Luiz do Tapajós project and its impacts (S5). Both texts highlighted a number of methodological weaknesses of the respective EIAs, arguing that these limitations restrict their applicability and challenged pro-dam assertions of the assumed sustainability of the projects. For example, the 2009 report on Belo Monte's EIA highlighted how official assessments had overlooked the impacts on fisheries in the region, as well as an underestimation of the number of people to be directly affected by the project (S188). Similarly, the ecologist at *Instituto Nacional de Pesquisas da Amazônia* (INPA), Philip Fearnside has argued that the official EIA for the São Luiz do Tapajós dam did not discuss the destruction of cultural sites of the Munduruku community by the project's construction (S112). This argument related to the methodological weaknesses and incomplete analysis present in official EIAs is widely replicated in resistance materials, with numerous organisations highlighting the discrepancies in these official documents (S5; S137; S141; S188; S206; S306).

Resistance actors present these weaknesses of EIA as evidence of the instrumentality of the environmental licensing process, with the document's findings having a limited effect on policy-making (I6; I11; I14; I18; I21). The EIA process was presented as merely a "box-ticking exercise" (I18), in which the pro-dam coalition legitimised a decision that had already been made (I14; I6; I11; I21). As one interviewee explained, "the decisions [are] made by just a handful of people in [the] Ministry of Mines and Energy... The rest of the licensing [process] is basically rubber-stamping this decision that has already been made" (I18). Similarly, a representative of the MPF argued that the companies behind EIAs did not complete such assessments in good faith arguing that:

I think, one of the main problems we have... [is] a kind of Environmental Impact Assessment industry in Brazil... I am working [on] this project in the south and we find references from another project in the north because it's just copy and paste (I14).

In making this statement, the interviewee asserts that official environmental assessments have become a formality for the pro-dam coalition. The description of the process as one of 'copy and paste' highlights a carelessness and lack of methodological rigour on behalf of pro-dam actors

who provide the documents - resulting in a lack of transparency and a neglect of impacts (I6; I11; I14; I20; I21; Q1; Q11; S5; S31; S112; S141; S194; S211).

Resistance actors moved beyond this critique to advance a storyline of impacts that illuminates the links between the Belo Monte and São Luiz do Tapajós projects and a number of other impacts, absent or understudied in both the pro-dam storyline of sustainability and the official EIAs. This represents a progress of reconfiguration of the dominant storyline of sustainability, with new signs - describing the projects' impacts - articulated into its signifying chain. With these impacts excluded from the pro-dam storyline, they are located within the field of discursivity - the site of all excluded meanings that challenge the potential hegemony of a discourse (Laclau & Mouffe, 1985). Resistance actors articulate these signs into new chains of equivalence present in the storyline of impacts. These respective acts of articulation challenge the pro-dam storyline of sustainability and reconfigure its signifying chain by demonstrating the equivalence between the Belo Monte and São Luiz do Tapajós dam projects and wider environmental issues. It is this storyline of impacts that I turn to below.

Belo Monstro

A dominant point of opposition criticism of the Environmental Impact Assessment of the Belo Monte dam project concerns the underestimation of the social impacts of the project's construction on the city of Altamira, a city of 70,000 people located on the Volta Grande of the Xingu river which is the nearest population centre to the Belo Monte site. Although the official Environmental Impact Assessments of the Belo Monte project discussed the increased pressures on health, security and sanitation infrastructure in the city, the pro-dam storyline asserts the economic benefits of the project for the local population. For example, Zé Geraldo, a PT Federal Deputy for the state of Pará, argued in 2011 that "The life of the Xingu, in Altamira, will not worsen due to Belo Monte. Quite the reverse" (S132). In making this statement, Geraldo articulates the equivalence between the Belo Monte project and notions of economic development that was explored in the previous chapter. Similarly, the Belo Monte EIA refers to the development opportunities of the project in the local region, with the project providing opportunities for employment, supporting workers achieving new qualifications and supporting the work of local and regional entrepreneurs (S95).

In response to the assertions of the positive change to be brought by the Belo Monte project, resistance actors at the domestic level highlighted a number of social and economic impacts, neglected in official EIAs (I6; I11; I18; I21; Q11; S5; S112; S211; S306). For example, a representative of a domestic environmental organisation described this process of highlighting impacts as motivated by the desire to discredit the economic benefits promised by pro-dam actors: "we couldn't allow the government to sell that development and well-being rhetoric." (I11). These

include impacts related to the population influx caused by projects, the failure of mitigative measures described in official EIAs and the personal experience of those displaced. In highlighting these impacts, deemed understudied by official assessments and neglected by pro-dam actors, resistance actors are forwarding a storyline of impacts that critiques and challenges pro-dam assertions of the economic benefits of the Belo Monte project. In response to these impacts, opponents of the Belo Monte project have endowed it with a new name, *Belo Monstro* (a play on the name 'Belo Monte', that can be translated as 'Beautiful Monster') (S301; S304). This alludes to large, ugly and feared being that places the community of Altamira at risk. This language is replicated in the description of *Elettronorte*, the owner of the Belo Monte project, as *Eletromorte* (S305). With the Portuguese 'morte' translated as 'death' in English, this graffiti articulates an equivalence between the Belo Monte project and the violent destruction of community in Altamira.

In discussing how the city of Altamira would be impacted by the Belo Monte project, resistance actors highlighted the socio-economic impacts of the population influx into the region caused by construction workers and those in subsidiary industries moving to the area to secure employment.⁸¹ Whilst official assessments recognised the stress that this influx could cause to the infrastructure of the region (S95), resistance actors have questioned the accuracy of official estimates. The EIA's projection of peak-level employment at the Belo Monte construction site of 18,700 direct employees and 23,000 indirect jobs (S95) was critiqued by, the local resistance group, *Xingu Vivo* - which argued that, in taking the migration of those employed in subsidiary activities reliant upon Belo Monte - the number of would be closer to 100,000 (S306). However, this figure provided by *Xingu Vivo* is itself disputed. A representative of a domestic EO argued that close to 30,000 workers had arrived in Altamira (I11). This difference in numbers illustrates a degree of uncertainty surrounding exactly how many migrants entered the region, likely due to different sources of information.

Although there is uncertainty in the estimated numbers of migrants who have arrived in the region, resistance actors provided similar discussions of the impacts that this period of migration has caused. With the Belo Monte project's period of construction extending from 2011 to the time of writing, resistance actors argue that the population influx into the city resulted in a process of upheaval and exclusion for the local *Altamirense* population (I9; I11; I21; S9; S253; S306).

⁸¹ Those who migrated to the area were not immediately able to secure work, with reports of hundreds of workers sleeping on the streets, waiting to be offered work on the Belo Monte site (Pedruzzi, 2012). However, interviewees did not discuss these issues of migrant homelessness and precarity, instead discussing how migration resulted in the exclusion of the local population. The element related to the lives of migrant populations and working conditions in Altamira remain excluded from the resistance storyline of impacts, with these elements located in the field of discursivity.

Interviewees at domestic EO's articulated this exclusion in an economic sense, highlighting how the population influx caused by Belo Monte has transformed the regional economy, increasing prices in Altamira (I4; I6; I9; I11). In discussing this change, an interviewee at a domestic EO described their personal experience of visiting Altamira: "I remember paying... people asking for one hammock... to sleep... under a plastic roof... paying 150 reais!" (I9).⁸² The interviewee went on to highlight the consequences of this rise in prices, explaining that: "It's a big exclusion - economically speaking - of the local population... [because] the local population... their income is the same..." (I9). In making this statement, the interviewee articulated an equivalence between the rising prices in Altamira and the economic exclusion of the local population, whose income is unable to match this change. This equivalence is developed further, with the interviewee later discussing how this economic exclusion has forced *Altamirenses* to leave the town:

So, they are now paying more, and a lot of people are leaving Altamira to live in other small cities around [the region] because they don't have enough money to pay or to sustain [their lives in] the new economy there [in Altamira] (I9).

In making this statement, the interviewee further highlights the equivalence between Belo Monte and the exclusion of the local population by arguing that Belo Monte has forced people from their homes, not only due to its direct impacts (such as flooding) but also as the result of rising costs of living in the city (S29). This equivalence is also evident in the words of other domestic resistance actors (I11; I20). For example, a Federal Deputy who has publicly campaigned against Belo Monte described how *Altamirenses* were now living in a state of bankruptcy, unable to financially support themselves due to the failure of their wages to keep up with price rises caused by the construction of the project (I20). Although the EIA does discuss an increased pressure on public services, such as healthcare and education, in the region, rising prices caused by a population influx remain unaddressed (S95). By highlighting these impacts, the resistance coalition articulates a new element into a reconfigured storyline of sustainability, with the experience of this financial exclusion presented as a significant, yet unaddressed, impact of the Belo Monte project (I9; I11; I20; I21).

The discussion of economic impacts is developed further, with a number of interviewees and resistance materials voicing concerns for the future of the area once the construction of Belo Monte was completed in 2019 (I5; I6; I11; S13). An interviewee based at a Brazilian EO explained the employment brought by the project as having a temporal character:

⁸² At the time of this conversation, BR\$150 was equal to £35 and covered the cost of a night in an air-conditioned hotel room in Belém, a serviced apartment in central Brasília, or an apartment in São Paulo (Observation, 28/10/2016).

The fact that it's not going to generate jobs forever - jobs comes and go... the boom and the bust. [It is] the kind of project that hydropower dams are. They come, they generate a lot of activity and jobs on site and then they leave. Just a few employees are left but the whole construction is over and so on (I5).

In adopting a language of 'boom and bust', this statement demonstrates a concern that, although Belo Monte may bring economic development to the region, the local economy would collapse in the wake of the project's completion. This asserts that the economic benefits promised by the pro-dam actors will dissipate (I6; I11). As a representative of the Brazilian arm of an international EO argued, "When you are building a dam, you employ a lot of people, but once it is over, these people lose their jobs" (I6). Amazon Watch has argued that, of the 40,000 jobs promised by the Belo Monte project, only 2,000 of them represent long-term employment, raising questions of the future of many of those employed by the construction consortium (S13). In forwarding this storyline, resistance actors articulate the equivalence between the Belo Monte project and the potential economic impacts that will occur after its construction, such as unemployment and economic stagnation (I15; I6; I21; S13). With this short-term nature of the economic development promised by pro-dam actors understudied within the official EIA provided by Norte Energia, resistance actors widen the scope of the analysis of Belo Monte's impacts in Altamira, whilst highlighting the long-term consequences for those living there (S95).

In discussing the transformation of Altamira, resistance actors articulated an additional element within the chain of equivalence by highlighting an increased criminality within the region around Altamira (I9; I21; S44; S163; S245). An upsurge in violence in the region has been widely discussed within criticism of the project (I4; I6; I9; I21; Q14; S32). For example: in describing the impacts of the project, the opposition film *Belo Monte: After the Flood* (produced by Amazon Watch and International Rivers) described how Altamira had experienced eight murders in one night, with the local police unable to ensure order (S32). Government evidence support assertions of increased levels of violence in Altamira, with figures disseminated by the *Ministério da Saúde* (Ministry of Health) showing that, in 2015, Altamira witnessed 124 deaths per 100,000 inhabitants - making it the most violent city in the world (S187).⁸³ Furthermore, in discussing this increased criminality, one interviewee reported that Altamira had witnessed the entrance of the criminal gangs of the favelas of Rio de Janeiro into the region, asserting that "members of this gang moved to Altamira and they killed all the members of the local group, to establish a new level of drug traffic." (I9). In making this statement, the resistance actor both highlights the increased criminality in the region and presents the links between this upsurge in violence and the

⁸³ This represents an increase of 147 percent from 2009 when Eletrobras requested the preliminary license for the Belo Monte project (S187).

influx of criminal actors from elsewhere in Brazil, sensing an opportunity for gain (I9). Although there is evidence of an increase in drug-trafficking in the region,⁸⁴ no other resistance actor discussed this arrival of drug traffickers from Rio de Janeiro in the region.

The equivalence between Belo Monte and increased violence in Altamira is an emergent articulation, presented by a limited number of actors who had visited the region. These actors often discussed this impact by describing their personal experience of the transformation of the city (I4; I6; I9; I11; I21). For example, an interviewee at an international EO explained that:

I went to Altamira in 2010 for the first time and it's a city... where you could walk around at night. I could walk from the restaurant back to my hotel at midnight, alone... Nowadays, people they not only would say, "Do not walk around on your own after dark," but they would lock their doors. They would put gates on their windows and on their doors, they would be very careful letting their children out during the daytime into the streets. (I21)

In making this statement, the resistance actor presents the increased violence in Altamira as the direct result of the entrance of the Belo Monte project (I9; I20; I21; S32; S187). For example, a representative of an international EO argued that "this [criminality] is directly related to the construction of Belo Monte, [to] the lack of governance when this project went in" (I21). With this impact absent in the official EIA (S95), the highlighting of increased violence in Altamira illuminates an understudied consequence of the construction of a dam near a population centre.

A number of resistance actors and materials discussed this upsurge of violence in gendered terms, highlighting how this impacts disproportionately affects women in the region (I11; S163). For example, an interviewee from a domestic organisation highlighted this link when discussing the population influx caused by Belo Monte, "Men. That's 30 thousand men [entering Altamira]." (I11). This statement articulates the equivalence between the increased violence in Altamira and the impacts on the lives of women in the region. In advancing this storyline, resistance materials provide evidence of an increase in gendered violence in the region (I11; S133; S163; S205; S254). For example, writing for the *Movimento dos Atingidos por Barragens* in 2013, Verena Glass described a police raid on a building that bordered one of the construction sites of Belo Monte, to find fifteen sex-workers held against their will and forced into such work (S133). This followed a previous operation, only days before, that found 14 victims of sexual exploitation in nightclubs in Altamira (S205). Resistance materials link this episode to the construction of Belo Monte (I11;

⁸⁴ According to news reports, there were 104 police arrests of drug traffickers in Altamira in 2013 compared to 22 arrests in 2011 (S183).

S133; S163; S205), with research, disseminated by opposition groups, finding that peak times of visits to sex workers in Altamira coincided with the payment period of the construction workers at the Belo Monte site (S254).

The articulation of this element of gendered violence into the storyline of impacts presents the social consequences of Belo Monte in a new light, illuminating the gendered impacts of the Belo Monte project. With the development of a hydropower project often impacting upon women disproportionately (Heiskel, 2016; Hill et al., 2017), the incorporation of the element of gendered violence articulates the equivalence between the Belo Monte project and the experience of women in the region. For example, research has revealed a sharp increase in the number of cases of sexual violence in Altamira, since the start of Belo Monte's construction (S254). With these gendered impacts of hydropower unaddressed in official EIAs (S95; S146), this process of rendering visible highlights impacts neglected within official assessments and introduces a new element into the resistance storyline. By articulating this equivalence between Belo Monte and gendered violence in Altamira, resistance actors are illuminating the often-neglected impacts of dam projects, that was overlooked in official pro-dam storylines and EIAs. With this element articulated within an equivalential chain that links it to issues of violence and economic exclusion, resistance actors challenge pro-dam assertions of the (positive) transformation of Altamira by the entrance of the Belo Monte project (I11).

An interviewee at the *Ministério de Minas e Energia* (MME) recognised these social problems, arguing that: "If you go to Belo Monte - I think you are going to see social problems... but there are a lot of solutions for some social problems that Belo Monte [has] provided" (I10). In making this statement, the interviewee is alluding to the numerous mitigative measures defined in both Belo Monte's EIA and the licenses granted by IBAMA (I10). These mitigative measures have both an environmental and social remit and are provided to address and limit the potential impacts of the project. The preliminary license granted to build Belo Monte in 2010 contained 40 conditions for planning and construction, including the building of schools and health clinics, the expansion of sanitation systems, the conservation of both aquatic and terrestrial ecosystems and the maintenance of the Xingu river's flow. These conditions were transferred to the installation license, granted in 2011. Of the total budget of Belo Monte, 14 percent - or R\$4 billion - was invested in mitigative measures and improvements to the area influenced by the project (S56). Norte Energia has asserted that 27 basic health units had been built and equipped (with malaria cases in Altamira reduced by 90 percent between 2011 and 2014), 252 classrooms built and 102 expanded (benefiting more than 20,000 students) and that, as of 2014, R\$429 million has already been invested in the installation of water and sewage networks and treatment plants (S251).

However, resistance actors have criticised Norte Energia for failing to fulfil these conditions and address the impacts of the project (I4; I6; I9; I11; Q14; S32; S111; S163; S310). Resistance actors have highlighted incomplete sewerage and water systems (I11; I21; S163) and the numerous problems with 4,500 new properties built by Norte Energia to house those displaced by Belo Monte (S32; S236; S241). For example, to mark the one-year anniversary of the project's operational license, the *Instituto Socioambiental* published a list of failings of the Belo Monte project – including the failure to complete sanitation works in Altamira, resulting in the discharge of raw sewage into the Xingu river (S163). In disseminating this material, the organisation highlights the failure of Norte Energia to fulfil the promises of improved infrastructure that it has made to the local community (S163). As a representative of an international EO explained: “many things that were promised at the consultation of the dam...are not going on and not happening” (I13). Interviewees reported incomplete schools, hospitals remaining unconnected to the electrical grid and shortages of electricity for the inhabitants of Altamira (I9; I11; I13; I21). A journalist who has written extensively on Belo Monte highlighted that, in Altamira, “you don't have bathrooms connected to a system in a city that has one of the biggest dams in the world” (I16). Another interviewee joked: “if you go there and see all the schools being built by the consortium... You have the walls and the roof but there is not any kind of chairs or teaching there... or students!” (I9). In presenting Norte Energia's failure to complete the necessary conditions, outlined in Belo Monte's licensing process, resistance actors advance a storyline that critiques and discredits official pro-dam assertions of the successful mitigative measures in Altamira (I10; S56; S251).

A number of resistance groups presented these local impacts by drawing attention to the experience and life-histories of individuals affected (S32; S64; S126; S147; S178; S253). For example, the 2016 film, *Belo Monte: After the Flood* showed members of local opposition groups, such as Antonia Melo and Raimunda Gomes da Silva, describing the personal impacts that the project has had on their lives (S32; S62; S64; S65). The film presents footage of both Silva and Melo surveying the sites of their former homes, having been displaced by Belo Monte's construction (S32). Antonia Melo was a figure who was discussed by a number of domestic resistance actors in interviews (I4; I6; I8). For example, a representative of a domestic human rights organisation explained to me how Melo had “... literally lost her heart. She had to undergo heart surgery during this whole process [of her displacement]” (I4). In making this statement, the interviewee highlights the physical toll that displacement and opposition have taken on Melo (explained as resulting in a heart transplant), whilst providing a poetic description of the emotional burden that Belo Monte demanded of her. This focus on the emotional impact of displacement is also evident in a number of articles, published in *El Pais*, that criticised the Belo Monte project by describing the respective experience of the *ribeirinhos* João and Raimunda da Silva and Antonia Melo, describing their eviction from their homes and the destruction of their neighbourhoods (S62; S63; S64; S65). Similarly, in an article published by Amazon Watch, Maini

Militão, the daughter of a farmer on the banks of the Xingu river, described her experience of displacement by Belo Monte:

Everything has been smashed to pieces. It changed everything. We had money, we had all the food we needed, we had everything... [But] they came and they destroyed everything. They didn't pay us a penny! (S126)

In illuminating the experience of these members of the local population, resistance actors provide the storyline of impacts with a human face, personalising the struggle for a wider audience. The resistance materials highlight how the project has transformed the everyday experience of *Altamirenses* (I4; I6; I21). These experiences are presented to a wider, national and international audience - be it through a globally-disseminated, a nationally-distributed newspaper or the websites of resistance actors. In presenting the impacts upon these individuals, resistance actors broaden impact assessments to include the stories of those directly affected and illuminating and disseminating the personal experience of those impacted, with the experience of Melo, Militão and the da Silva presented as evidence of the traumatic impacts of the Belo Monte project (S32; S64; S126).

Resistance actors demonstrated a tendency in interviews and questionnaires to refer to this transformation of Altamira when discussing the sustainability credentials of the Belo Monte project (I4; I6; I8; I11; I18; I20; I21; Q5). For example, a respondent from an international EO focused on forest-conservation explained that there is “nothing clean... nothing ‘renewable’ about an energy type that causes so many impacts on the local populations and towns in the region and with a limited time span over years. Just go to Altamira and look for yourself” (Q5). Within this statement, Altamira becomes a site for resistance actors to widen the definition of sustainability, incorporating additional elements, excluded from the pro-dam storyline, to illuminate the impacts of the project and critiques assertions of its sustainability.

In summary, the articulation of these elements of financial exclusion, violence and failed mitigative measures into the resistance storyline of impacts highlights neglected consequences of the project and presents it as evidence of the disintegration of the social fabric of Altamira, in the wake of Belo Monte (I4; I6; I21; Q14). It was often asserted that such issues will not disappear once the Belo Monte project is complete, instead, this increase in violence and insecurity is described as “something that stays with the city and doesn’t leave. They will stay forever, those consequences” (I16). With the city presented as irreversibly damaged and plunged into chaos (S64; S81; S297), resistance actors argue that the Belo Monte project has not bought the benefits promised to Altamira by pro-dam actors. These impacts, undiscussed in official EIAs, challenge the dominant storyline of sustainability (as well as assertions of economic development) by

highlighting the numerous impacts faced by the population of Altamira, highlighting those impacts absent in official assessments and providing a voice to those individuals who have been left in Belo Monte's wake.

The fate of the forests

The official pro-dam environmental assessments divide the impacts of hydropower projects into two areas: defined as areas of 'direct' and 'indirect' influence (S95; S146). This division distinguishes between the impacts occurring in the immediate vicinity of the construction site and those 'indirect' consequences occurring in areas deemed beyond the responsibility of those planning and building the respective projects.

In response to this distinction, resistance actors forward a storyline of impacts to critique the pro-dam storyline of sustainability by broadening the horizons of these official assessments. The differentiation between 'directly impacted' and 'indirectly impacted' is presented by resistance actors as reflecting both a methodological weakness of the official EIA and a neglect of indirect impacts by pro-dam actors forwarding a storyline of sustainability (I9; I14; I18; S141; S194). For example, an interviewee at a domestic EO argued "no one is talking about the effects on the large[r] scale, on the landscape. They are just thinking about 10 kilometres from the plant." (I9). In making this statement, the resistance actor highlights the neglect of the wider impacts of the project, asserting the need to widen the spatial focus in official assessment. Whilst challenging the narrow spatial focus of official EIAs, resistance actors illuminate the equivalence between the projects and a number of impacts, deemed 'indirect' in official assessments to challenge the asserted sustainability of the respective projects. The articulation of this equivalence between the projects studied and wider impacts broadens the horizons of the assessment of impacts of the Belo Monte and São Luiz do Tapajós dam project and challenge the quality of official EIAs (I9; I13; I16; S141; S276).

In forwarding a critique of the distinction between 'direct' and 'indirect' impacts, resistance actors assert the links between the Belo Monte and São Luiz do Tapajós projects and processes of deforestation (I6; I9; I11; I21; Q5; S30; S74). Although official Environmental Impact Assessments discuss these links to deforestation, this focused on such processes in areas deemed of 'direct' influence (with deforestation occurring through land-clearing for the creation of channels or reservoirs or cutting for building materials) (S95; S146). An interviewee argued that the focus of a limited area of impacts resulted in an absence of effective measures of mitigation of potential deforestation caused by the entrance of the project into the region, explaining that "When you build a dam, infrastructure arrives, a lot of people arrive and if you don't have a good plan of mitigation... you will, for sure, have deforestation" (I16). By highlighting this equivalence between the projects studied and wider patterns of indirect deforestation, resistance actors

highlight both a methodological weakness of official EIAs and render visible a neglected impact of dam-construction in the Brazilian Amazon (I9; I21; S30; S141; S164; S166; S176; S290).

Resistance actors highlight these wider impacts of deforestation to criticise pro-dam storyline of sustainability as neglecting the impacts that extend beyond the defined boundaries of the respective projects (I9; I6; I11; I14; I18; I21). These impacts were likened to a “domino effect” in one interview (I16), resulting in their characterisation as impacts that extend along an extensive spatial and temporal scale, highlighting how one impact can often lead to another, regardless of the actions of local actors (I11; I21; S30; S141; S164; S167). For example, one interviewee at an international EO labelled indirect deforestation “a common kind of paradigm that follows these dams [in the Amazon], essentially leave[ing] environmental destruction in their wake” (I21). The logic underpinning this claim is that, as a hydropower project enters a region, it acts as a spearhead - stimulating migration into the region and opening up new areas for extraction (S5). Resistance actors argued that the construction of a dam stimulates an increase in illegal logging within the respective region, linking the Belo Monte project to an increase in illegal deforestation in the Xingu river basin (I11; I21; S30; S141; S164). For example, Greenpeace has linked Norte Energia’s purchasing of 17,000 m³ of wood from external suppliers to a context in which logging rates in protected areas have increased and the continued encroachment of loggers into the Cachoeira Seca indigenous land (S141). This extends the scale of analysis, with this deforestation occurring approximately 200km southwest from the Belo Monte construction site - an area described by one interviewee as understudied within official assessments (I9).⁸⁵

In articulating the equivalence between dam-construction and deforestation and habitat destruction, resistance actors foreground the local resistance against the Belo Monte and São Luiz do Tapajós to a national storyline linked to the deforestation of the Amazon. This represents a process of ‘scaling up’, with resistance actors linking their opposition to the projects studied to a wider storyline that had been established in Brazilian environmental politics.⁸⁶ Although the reversal of deforestation in Brazil has been celebrated in the past, this process has stalled in recent years - with accelerating rates of forest loss widely reported in national and international media (Guerreiro, 2017; O Globo, 2017a; Tabuchi et al., 2017).⁸⁷ The protection of the Amazon biome

⁸⁵ A study by ISA found that, in 2014 and 2015, deforestation in the region increased by 73%, with 333 kilometres of illegal roads, used by logging operations, built (S164).

⁸⁶ For example: in 1985, Chico Mendes and Mary Allegratti persuaded the First National Congress of Rubber Tappers to frame their struggle against encroachment on territory within a storyline of deforestation, allowing the group to gain international support (Hochstetler & Keck, 2007).

⁸⁷ The *Instituto Nacional de Pesquisas Espaciais* (INPE) found that the national rate of deforestation has increased by 29 percent between August 2014 and July 2016, representing 7,892 km² deforested in the period (S161). This represents the highest level of deforestation observed since 2009.

- from both deforestation and biodiversity loss - represents an important storyline in global environmental politics (I7; I21; S32). With processes of deforestation increasing at the time of these projects (Walsh, 2011; Watts, 2015; Tabuchi et al., 2017), a number of critics have argued that the failure to protect the forests and biodiversity from such actions are antithetical to Brazil's national commitments to climate change mitigation (S66; S135; S190).⁸⁸

The articulation of this equivalence functions to challenge the 'moral legitimacy' of the projects studied, by highlighting a discrepancy between the projects and the dominant storyline of sustainability (S165; S166). With the pro-dam storyline of sustainability presenting the Belo Monte and São Luiz do Tapajós dams as compatible with an emergent environmental consciousness in Brazil, resistance actors challenge and reconfigure this moral legitimacy by highlighting the links between dam-construction and deforestation. As a representative of an international EO explained in an interview, "it isn't possible [for a project] to deforest... more than 500 square kilometres of forest [and] consider it clean [energy]" (I11). In articulating the links between the Belo Monte and São Luiz do Tapajós projects and the protection of the Amazon, resistance actors draw on a growing a popular environmentalist consciousness increasing in Brazil. A 2012 poll by the *Ministério do Meio Ambiente* (Ministry of the Environment) found that 51 percent of Brazilians would be willing to contribute money to protect the Amazon rainforest (MMA, 2012). As an interviewee at a domestic EO explained, "The public opinion is going slowly to the idea of let's preserve, let's conserve... There are many other activities and many other initiatives towards sustainability that is gaining the public opinion" (I7). The presentation of Belo Monte and São Luiz do Tapajós as drivers of deforestation cast the projects as environmentally damaging - foregrounding the local struggle against the Belo Monte and São Luiz do Tapajós within a wider context of popular and political action against deforestation.

By highlighting the links between the projects studied and patterns of deforestation, resistance actors reconfigure the dominant storyline of sustainability by highlighting the 'indirect' environmental impacts of the projects studied that are undiscussed in official assessments and presenting them as evidence of the environmental impacts of the projects studied. In articulating the equivalence between the projects studied and processes of deforestation, resistance actors challenge the pro-dam storyline of sustainability by highlighting the damage caused by the project, as well as the neglect of such impacts in official documents. The pro-dam storyline is reconfigured, with processes of deforestation asserted to restrict the environmental credentials of the respective project.

⁸⁸ For example, the internationally-prominent supermodel, Gisele Bündchen has openly criticised government inaction on deforestation, writing in the Washington Post, "Everyone needs to become aware of what is happening in the Amazon and the consequences that the choices we make have on our future" (S66).

Greenhouse gases as a floating signifier

In disputing the pro-dam storyline of sustainability, resistance actors demonstrate an emergent act of articulation that highlights the links between the construction of dams in tropical regions and the emissions of greenhouse gases (GHGs) (I18; I20; I21; S116; S117; S177; S303). With the sign of GHG emissions present in the pro-dam storyline of sustainability, this represents the rearticulation of a floating signifier. In articulating the equivalence between the Belo Monte and São Luiz do Tapajós projects and GHG emissions, resistance actors reconfigure the role of this element in the pro-dam storyline, questioning the location of hydropower within international discussions of climate change governance.

A dominant element in the pro-dam storyline of sustainability is that of GHG emissions, with pro-dam actors contrasting the hydroelectricity generated by Belo Monte and São Luiz do Tapajós with the emissions of fossil fuel energy sources (Atkins, 2018a). For example, Fernando Ferro argued that “If we do not build hydroelectric plants, we shall have to follow other paths: using nuclear energy, using thermal energy and generating energy from fossil fuels, thus increasing greenhouse gas emissions, which will cause significant losses to our differential of generating clean energy” (S120). In making this statement, Ferro foregrounds the sustainability credentials of dams in their greenhouse gas emissions, deemed limited when compared to other energy sources. Within this statement, hydropower is presented as a central part of sustainable development agendas and a transition to ‘green’ energy. For example, in 2011, Federal Deputy for Ceará, Chico Lopes described how:

The Brazilian government must... continue with the construction of the Belo Monte hydroelectric plant ... for it is a clean and renewable energy source that will prevent future non-green energy sources from being used (S186).

In making this statement, Lopes asserts the dichotomy between hydropower and greenhouse gas emissions, casting the project as ‘clean’ and arguing that the GHGs emitted from dams are far less than the alternatives (defined as coal, oil and natural gas) (Atkins, 2017). With the element of GHG emissions articulated with the pro-dam signifying chain, it represents a floating signifier that is present in numerous, often-divergent storylines and having been inscribed in different meanings. Whilst pro-dam actors legitimise hydropower by highlighting its relatively low levels of emissions, the resistance coalition reconfigures this equivalence to demonstrate that such a claim may be inaccurate.

Resistance actors contest and reconfigure this equivalence by highlighting how hydroelectric dams *are* responsible for the emission of greenhouse gases. For example, one interviewee explained that, within the first ten years of operation, the Belo Monte project would likely emit

“the equivalent of the greater São Paulo... every year. Around 11 million tonnes of carbon per year, equivalent - for the first ten years.” (I18). In making this statement, the interviewee highlights the emissions to be caused by Belo Monte by comparing it to the largest urban area in Brazil, with the São Paulo metropolitan area home to approximately 21.3 million people in 2016 (IBGE, 2016). By making this comparison, the resistance actor highlights the apparent enormity of the GHG emissions from the Belo Monte project over the first ten years of its operations. Similarly, at the international level, the prominent social and human rights campaigner, Bianca Jagger wrote in *The Huffington Post* that the Belo Monte project will “emit high levels of greenhouse gases such as methane, carbon dioxide and nitrous oxide, enough to rival years of output from the worst fossil-fuel power plants” (S180). In making this statement, Jagger rearticulates the equivalence between the Belo Monte project and GHG emissions found in the pro-dam storyline to argue that dam projects are responsible for similar amounts of GHG emissions as the fossil fuels that pro-dam actors have distanced themselves from.

Although it represents an emergent act of articulation, the positioning of the element of GHG emissions into the signifying chain represents the further development of the storyline of impacts to critique the dominant storyline of sustainability. The GHG emissions of the Belo Monte and São Luiz do Tapajós projects are presented by a number of resistance actors, from both the national and international level, as providing a primary reason for the need to cancel the planning and construction of dams in the Brazilian Amazon region (I18; I21). For example, a domestic journalist argued that these emissions represented a key reason for the lack of sustainability of these projects - arguing that “I think that reason should be enough [to stop construction]” (I16). Similarly, a representative from an international EO asserted, “There is nothing clean about a project that destroys tens of thousands of hectares of forests and that will increase carbon in the atmosphere” (I21). With the pro-dam storyline of sustainability locating hydropower within sustainable development agendas due to its limited GHG emissions, as well as the role of Clean Development Mechanism in contemporary climate change governance, resistance actors reconfigure this element of emissions to subvert its meaning. In making these statements, resistance actors dispute the sustainability credentials by drawing attention to the energy sources emissions, the very property that underpins hydroelectricity’s presence in the CDM. By highlighting the emissions of the Belo Monte and São Luiz do Tapajós projects, resistance actors challenge the pro-dam storyline of sustainability by signalling its inconsistencies.

The equivalence between the projects studied and GHG emissions are also presented by resistance actors critiquing the role of hydroelectric dams in contemporary discussions of climate change mitigation (I18; I21). Similarly to discussions of deforestation, this represents a process of ‘scaling up’ of resistance to the Belo Monte and São Luiz do Tapajós projects, with the dams’ emissions presented within a global storyline linked to greenhouse gas emissions and climate

change mitigation (I18; I21; S188). With the location of hydropower in sustainable development agendas supported by international policy mechanisms, such as the Kyoto Protocol's Clean Development Mechanism (CDM), resistance actors presented the equivalence between hydropower and GHG emissions to assert the incompatibility of hydropower with policies of climate change mitigation (I18; S106; S108; S110; S117; S169; S194).

These discussions of the links between the projects studied often directly referred to the emission of methane gas from the reservoirs of hydroelectric dams (I5; I6; I18; I21). Resistance actors have labelled dams 'methane factories' (S177) with the equivalence between the projects and GHG emissions directly asserted (I6; I18; I20; I21; S112; S116; S117; S141; S177; S303). For example, a *Xingu Vivo* leaflet, distributed locally in Altamira, explained how rotting vegetation below the surface of Belo Monte's reservoir resulting in methane emissions, described as being 21 times more potent than carbon dioxide (S303).⁸⁹ One interviewee argued that this characteristic of methane made its emitting by a dam's reservoir challenge the location of hydropower as a key point of mitigation in contemporary policies of climate change governance (I18). The interviewee went on to directly link this methane emitted by hydropower projects to the 2015 Paris Accord and, with it, international climate change governance:

If you're serious about meeting the Paris Agreement⁹⁰ ... what really counts is what happens in the next twenty years... what will happen in 80, 90 or 100 years in the future doesn't count because we will already be past this 2 degrees (I18).

In making this statement, the interviewee challenges the location of hydropower in contemporary sustainable development agendas by arguing that the infrastructure's methane emissions restrict any realisation of the widely-heralded 2015 Paris Accord. Similarly, an interviewee at an international EO explained that "we have major greenhouse gas emissions coming from these projects that negate any question that they are ... somehow offering a clean and low carbon energy source or low greenhouse gas energy source" (I21). By articulating the equivalence between the projects studied and methane emissions, resistance actors challenge the storyline of sustainability by discrediting pro-dam claims of limited GHG emissions and highlighting the importance of GHGs in understanding the sustainability of hydropower.

⁸⁹ Whilst carbon dioxide is released by vegetation protruding above the water level, the decomposition of plants and trees below the surface create methane. This gas is subsequently released when it is processed by the turbines. As one respondent explained: "it's just like when you open a bottle of Coca Cola or something. Bubbles come out. The gases come out of the water" (I21).

⁹⁰ The 2015 Paris Accord committed 170 party-states to act to ensure that the global temperature in the rise in the 21st century remains below a line of 2 degree celsius increased from pre-industrial levels.

At the time of writing, this articulation of equivalence between the projects and methane emissions remains emergent and the links between dams, methane emissions and climate change are contested within scientific research (Rosa et al., 2004; Berga, 2016; Deemer et al., 2016). Other interviewees questioned the location of methane emissions within the opposition's critique of hydropower projects in the Amazon region (I5; I10). For example, a journalist who has written extensively on Belo Monte, explained that "it [methane] is still a matter of debate - how much it generates" before moving on to discuss a central figure in this articulation of methane emissions, "I don't want to question his reputation but his insistence on these methane emissions doesn't seem to be, at least from what I know, mainstream in the research community" (I5). The uncertainty surrounding the links between hydropower and methane emissions is based on debates regarding the potency of the gas and its importance for contemporary climate change emissions. As one interviewee explained to me, "Methane is... some people say 23 times, some say 86 times, worse than carbon dioxide - still a lot more." As a result, the role of the element 'methane' in the resistance storyline of impacts is not assured, with the significance of the emissions of this gas disputed. Greenhouse gas emissions remain a floating signifier, present in both pro-dam and resistance storylines discussing the Belo Monte and São Luiz do Tapajós.

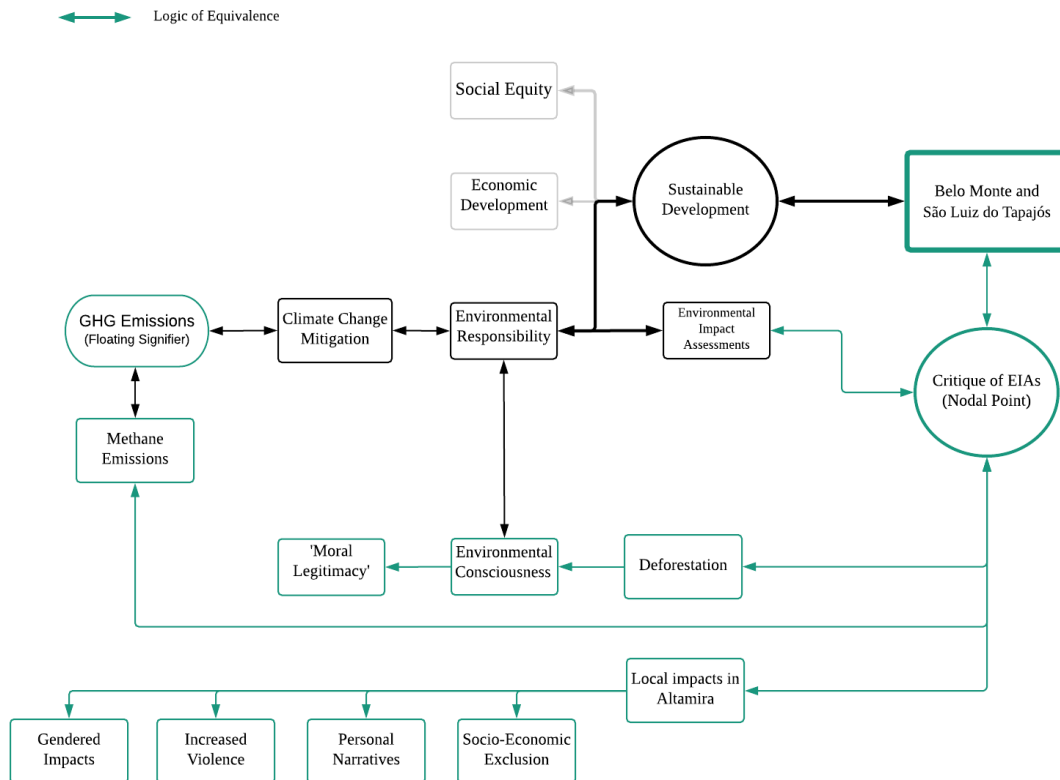
However, the debates surrounding methane emissions from dam-construction does not restrict the acts of articulation defined above from being understood as demonstrative of the further development of the storyline of impacts to incorporate the floating signifier of GHGs. With the pro-dam storyline of sustainability located hydropower within contemporary sustainable development agendas and climate change mitigation, resistance actors rearticulate the floating signifier of greenhouse gas emissions to reconfigure the pro-dam storyline. Resistance actors articulate the equivalence between the Belo Monte and São Luiz do Tapajós projects to critique the dams as 'methane factories' and challenge the assertions of pro-dam actors that foreground the sustainability credentials of the projects in their low GHG emissions. Although the role of this sign in the resistance storyline is not assured, the equivalence between the projects studied and the emission of GHGs is articulated by resistance actors to directly critique and question the storyline of sustainability that accompanies contemporary dam-construction in Brazil.

Conclusion

This chapter has focused on the storyline of impacts advanced by resistance actors that articulate an equivalence between the Belo Monte and São Luiz do Tapajós projects. This storyline has been presented by the resistance actors to question, critique and discredit both the pro-dam storyline of sustainability and the official Environmental Impact Assessments (EIAs) provided by the consortia planning and building the respective projects. I have identified three primary acts of articulation. These are: 1) the equivalence between the Belo Monte project and the socio-economic impacts experienced in the city of Altamira; 2) the equivalence between the projects

studied and wider issues of deforestation and biodiversity and habitat protection in the Brazilian Amazon region; and 3) the equivalence between these dams and the floating signifier of greenhouse gas (GHG) emissions. The positioning of - and relations between - these elements are illustrated in Figure 5 below.

Figure 5: A storyline of impacts



In combination, these acts of articulation - organised around the nodal point of the critique of the official EIAs - constitute a resistance storyline that presents an alternative vision of the sustainability of the respective projects. In contesting the respective EIAs of the Belo Monte and São Luiz do Tapajós projects, the resistance coalition broadens the horizons present in official assessments to incorporate a number of additional elements. The dominant storyline of sustainability advanced by pro-dam actors is reconfigured by the entry of these additional elements from the field of discursivity - describing impacts that are presented as underexplored or absent from official assessments. It is that act of articulation that allows resistance actors to question the validity and accuracy of the assessment and its projected impacts of the projects, whilst presenting their own understandings of the sustainability of the projects studied. The articulation of an equivalential chain that joins the elements of local socio-economic impacts, deforestation and GHGs presents an alternative vision of the sustainability of the projects studied that critiques the projects based on their role in wider patterns of social upheaval and environmental harm - which are deemed as neglected in the pro-dam storyline of sustainability.

Chapter 7

A storyline of antagonism

In this chapter, I explore the resistance storyline that discusses the relationship between the Belo Monte and São Luiz do Tapajós dams and the indigenous communities predicted to be impacted by the projects. In presenting the projects studied within a wider context of encroachment upon the territory of indigenous communities, resistance actors forward a *storyline of antagonism*, positioning elements related to cultural identity and the right to free, prior and informed consent in the signifying chain. These elements are organised around a privileged sign (or nodal point) that highlights the equivalence between the dam projects and a wider context of threats to and encroachment on the territories of indigenous communities. I understand this privileged sign as representing what Laclau and Mouffe (1985) define as *antagonism*, with the projects studied cast as a site upon which the cultural identity and rights of the indigenous communities impacted collide with dominant pro-dam interests and storylines.

The entrance of these elements into the signifying chain broadens the storyline of sustainability to include the impacts for the indigenous communities living within the area. With these impacts undiscussed or denied in the assertions of pro-dam actors, the storyline of antagonism reconfigures the dominant storyline of sustainability by highlighting the impacts on indigenous communities and arguing that the Belo Monte and São Luiz do Tapajós projects symbolise the continuation of a historical process of disrespect and subjugation in Brazil. In forwarding this storyline of antagonism, resistance actors highlight the social inequities demonstrated by the Belo Monte and São Luiz do Tapajós projects, with the culture and rights of indigenous communities neglected by the pro-dam coalition.

This chapter is divided into four sections. In the first, I introduce the role of indigenous communities within the resistance coalition's presentation of both the Belo Monte and São Luiz do Tapajós projects and their opposition to them. In the second, I focus on the articulation of the equivalence between the projects studied and a series of wider threats to indigenous communities in Brazil. Third, I explore the assertions of resistance actors that the hydropower projects studied have restricted, threatened and erased the cultural identity of indigenous groups impacted, with this experience articulated as equivalent to the colonial history of Brazil. Lastly, I analyse how the storyline of indigeneity is extended to incorporate elements related to a language of human rights, with particular reference to the right to free, prior and informed consent.

The impacted communities

A central act of articulation in the resistance coalition's reconfiguration of the pro-dam storyline of sustainability concerns the equivalence between the respective projects and their impacts on indigenous communities in the Xingu and Tapajós basins. Within official assessments, twelve indigenous lands are projected to be impacted by Belo Monte project, with impacts including an alteration of the Xingu river's flow, the disruption of fisheries and a number of pressures associated with an increased population in the region (including increased competition for resources, biodiversity loss and spread of disease) (S95).⁹¹ With the São Luiz do Tapajós never moving beyond its planning process, its impacts on indigenous communities are less clear. Official assessments predicted that the project would directly or indirectly impact seven indigenous communities, including the Apiaká de Pimental, Akaybãe, Remédio, Sai Cinza, São Martinho and Boca do Igarapé Pacu communities, with parts of the territory of the Munduruku indigenous community to be flooded by the project's reservoir (I10; S146). Impacts described by resistance actors include the flooding of land, the loss of fisheries used for both subsistence and ornamental fishing⁹² and an increase in waterborne diseases (I11; I16; I21; S41; S137; S192; S248).

Despite this, pro-dam actors have denied the respective project's impacts on indigenous communities. For example, Dilma assured members of the public that indigenous communities would not be displaced from their homes by Belo Monte (S57). Similarly, Edison Lobão, Minister of Mines and Energy under the Dilma Rousseff administration, labelled criticism of the project based on impacts on indigenous communities 'misinformation', alluding to a lack of legitimacy of such claims (S97). A similar language was used to describe the São Luiz do Tapajós, with an interviewee at the *Ministério de Minas e Energia* (MME) arguing that the planners of the project were unaware that the project was being built in an area near to indigenous communities, describing the local communities as 'nomadic' (I10). In making these statements, the pro-dam actors demonstrate their belief that the two projects would not impact upon indigenous communities, with many communities in the respective regions being either unaffected or mobile enough to avoid the impacts.

In response to these claims by pro-dam actors, the respective projects' impacts on indigenous communities have provided a key site for the reconfiguration of the dominant storyline of

⁹¹ These include the Paquiçamba and the Volta Grande do Xingu Macaw areas, both located within the territory of the indigenous Juruna territory located on the 'big bend' of the Xingu river. Within official documents, these lands are described as to be 'directly influenced' by the project, resulting in a number of communities being resettled away from their traditional territories (S95). Ten additional indigenous territories are listed as being located in areas of indirect influence, including the Xikrín, Xipaia, Kuruaya and Kayapó communities (S95).

⁹² Catching live fish for sale to collectors is a key part of the livelihoods of the Juruna and Arara communities (S41).

sustainability surrounding the Belo Monte and São Luiz do Tapajós projects. The resistance storyline of antagonism presents indigenous groups as central actors in local opposition to the Belo Monte and São Luiz do Tapajós projects (I4; I7; I8; I21; S2; S69; S162; S179; S234; S250; S262; S267; S283). Although additional groups⁹³ are impacted by the projects and discussed in resistance materials (S218; S219; S232), the articulation of equivalence between the projects studied and the resistance of indigenous groups represents a dominant storyline put forward by national and international civil society groups and actors. Within interviews and resistance materials, resistance actors highlighted the impacts faced by indigenous communities resisting the Belo Monte and São Luiz do Tapajós projects, praising their resistance and arguing for their protection and empowerment (I4; I6; I7; I8; I21; S69; S179; S234; S250). A number of resistance materials incorporated images of indigenous communities in their presentation of the impacts of the Belo Monte and São Luiz do Tapajós projects (S5; S7; S32; S141; S142). For example, reports published and disseminated at the national and international level by Greenpeace featured prominent images of members of indigenous communities, presenting them as actors and communities facing the social and environmental impacts of the Belo Monte project (S141; S142). This incorporation of images of indigenous communities within discussions of the projects and their impacts represents an act of articulation that develops the equivalence between the Belo Monte and São Luiz do Tapajós projects and what are perceived as extensive impacts on indigenous communities in the respective regions (I4; I6; I7; I8; I21). Within these acts of articulation, the contests over hydropower in the Brazilian Amazon are framed as an indigenous struggle (I4; I6; I16; I21; Q10).

Resistance actors discuss the local opposition to the Belo Monte and São Luiz do Tapajós projects with particular reference to two indigenous groups, the Kayapó (opposing Belo Monte) and Munduruku (opposing São Luiz do Tapajós) communities (S69; S179; S234; S250; S267). Although other indigenous groups resisted the projects studied, the role of the Kayapó and Munduruku communities in the resistance coalition was discussed extensively by interviewees (I4; I6; I7; I8; I19; I21) and in resistance materials (S5; S15; S134; S250). The significance of the Kayapó and Munduruku communities is evident in the role of these communities as prominent figures in - and faces of - the resistance coalition against the Belo Monte and São Luiz do Tapajós projects. In the case of Belo Monte, Cacique⁹⁴ Raoni Metuktire of the Kayapó community is a highly visible figure in international reports of resistance against the project from the 1989

⁹³ These traditional groups include riverine communities (known as *ribeirinhos* and *beiradeiros* in the Xingu and Tapajós basins respectively) and those engaged in subsistence fishing (*pescadores*), often the descendants of migrants to the region during the 19th-century rubber boom.

⁹⁴ A term for an indigenous chief.

Altamira Gathering to the present day.⁹⁵ Easily recognisable in a headdress of bright yellow feathers and traditional Kayapó jewellery and lip-plate, Cacique Raoni has travelled internationally to speak of the impacts of Belo Monte and for the need to protect the Brazilian Amazon.⁹⁶ Similarly, Greenpeace International has supported leaders of the Munduruku community to travel internationally, allowing for the wider dissemination of resistance storylines and for Munduruku Caciques to directly lobby a number of international companies linked to the project. For example, Arnaldo Kabá, a Munduruku Cacique, visited London in May 2016, where he unsuccessfully attempted to arrange a meeting at the headquarters of Siemens, the German firm that has made hydroelectric turbines for projects in the Brazilian Amazon (S292). Similarly, members of the Munduruku community spoke at the United Nations Framework Convention on Climate Change (UNFCCC) 21st Conference of Parties, held in Paris in 2015 (S20). The visits - supported by national and international resistance actors - functioned to draw attention to the impacts of the projects studied at the international level.

The funding and planning of these international visits demonstrate a tactic of domestic EOs in the resistance coalition: namely, the empowerment of indigenous communities and their elevation as figureheads of opposition. For example, an interviewee from the Brazilian arm of an international EO: “This [the opposition to São Luiz do Tapajós] was a Munduruku struggle for a long time. We were a tool to help them increase awareness, [to] spread the word to the world” (I6). In making this statement, the interviewee is emphasising the agency the Munduruku community by describing the activity of EO’s as a ‘tool’ to be used by the community, alluding to the autonomy of the Munduruku over how resistance to the São Luiz do Tapajós dam would be organised (I6). Within interviews, the struggle against the respective projects studied is defined as ‘theirs’, with the agency of indigenous communities in opposing the projects studied reaffirmed (I4; I6; I7; I8; I21; S86). For example, an interviewee at a domestic human rights organisation argued that the role of civil society was to “get people to hear their [those impacted] stories and, at least, know what is going on” (I4). Similarly, speaking of the organisation’s relationship with the Munduruku, a representative of the Brazilian arm of an international EO argued “our goal was to accelerate and potentialise the struggle. It was *their struggle*” (I6, emphasis added). In empowering the agency of indigenous groups, national and international actors in the resistance coalition elevate

⁹⁵ At the 2017 Carnival in Rio de Janeiro, one of Brazil’s foremost samba schools, *Imperatriz Leopoldinense* produced a show that paid tribute to the indigenous peoples affected by Belo Monte. Titled “Xingu: The Clamour from the Forest,” the colourful tribute involved 3,500 dancers and a delegation of thirty indigenous leaders from both the Xingu and Tapajós basins (S16; S243). Cacique Raoni was immortalised by a carnival float in his image.

⁹⁶ Raoni’s global visits to garner support for resistance against Belo Monte have been complemented by visits to the Xingu region by numerous international public figures, including James Cameron and Arnold Schwarzenegger who visited Raoni and other indigenous leaders in 2011 (S11).

local communities and groups resisting the Belo Monte and São Luiz do Tapajós projects to become figureheads of a struggle defined as their own.

This location of indigenous communities at the centre of a resistance storyline represents a departure from previous problems present in resistance coalitions - namely the forwarding of a wider storyline that becomes detached from the grievances, demands and identities of local resistance actors (Rangan, 2000; Rootes, 2007: 735-737; Usher, 2013). Rather than representing the absorption of local demands into an overriding storyline provided by international actors, the storyline of antagonism is forwarded to present members of indigenous communities as “protagonists of their own stories” (I4), with national and international organisations acting to engage with and empower these local movements and actors (I4; I6; I21). Figures from indigenous communities are located at the centre of the resistance coalition against the Belo Monte and São Luiz do Tapajós projects, with the communities’ demands and grievances articulated as signs within the resistance storyline at the international level, attracting support from public and political figures.⁹⁷

The elevation of indigenous communities in resistance materials and action acts to discredit and dismiss the *pristine myth* that has historically been evident in processes of colonisation, development interventions and infrastructure projects in the Brazilian Amazon region.⁹⁸ Successive Brazilian governments have characterised areas of the Amazon region as unoccupied and unused and denying the social impacts of projects or policies on local communities (Bezerra, 2015). The denial made by pro-dam actors regarding the impacts experienced by indigenous communities represents a continuation of this myth. In articulating the equivalence between the projects studied and the impacts upon indigenous communities, the resistance coalition reasserts the presence of these communities in the region and highlights a long history of occupation (I6; I15; I21; Q1; Q10; S234). For example, Greenpeace Brasil, in a 2016 report, argued that the Munduruku had been present in the Tapajós for “centuries” (S141). Similarly, writing for *Publica*, the journalist Bruno Fonseca provided a timeline of the São Luiz do Tapajós project that began in the 18th century, the time of the Munduruku’s first contact with non-indigenous groups (S123). In drawing attention to this history of occupation, the resistance actors affirm the presence of

⁹⁷ This centrality of traditional populations in the resistance coalition and their presence of international trips to generate support, is foreshadowed by the activism of, the rubber-tapper activist, Chico Mendes, who, in 1987, flew to Washington D.C. to convince the World Bank and International Monetary Fund to support the creation of extractive reserves (Revkin, 1990). Similarly, in 1988, two Kayapó leaders travelled to Washington, D.C. to meet with officials from the World Bank and to argue against the institution’s potential funding of the Kararaô project (Ramos, 1998). Both of these episodes represent what Keck and Sikkink (1998) have described as the ‘boomerang effect’, in which domestic activists attempt to influence international actors and organisations to affect change at the national level.

⁹⁸ The ‘pristine myth’ describes lands, home to an indigenous population, as unpopulated and wild *terra nullius* (Denevan, 1992).

communities within the area and the effects that these hydropower projects will have upon them (I4; I21; S267). It is by asserting the presence of indigenous communities within the region that the resistance coalition is critiquing pro-dam assertions of the limited magnitude of impacts upon these groups - highlighting the presence of indigenous communities, their opposition to hydropower projects and the impacts that they face (S48; S268; S276; S283).

A wider antagonism

Resistance actors linked the impacts of the Belo Monte and São Luiz do Tapajós projects on indigenous communities to a wider, political contest between these groups to the encroachment on their territories by developmentalist and extractive projects and interests. The articulation of this equivalence between resistance to Belo Monte and São Luiz do Tapajós and threats to indigenous communities represents a historic storyline in Brazil (Rodrigues, 2002), which was evident in the 1989 resistance to the Kararaô project. A landmark event of the 1989 Altamira Gathering was an act of hostility made by a member of the Kayapó community against José Antonio Muniz Lopes, the head of, the government electrical company, Eletronorte, who had been sent to argue for the necessity of the project. In a now-famous act, Tuíra, a Kayapó warrior, approached Lopes and placed her machete to his cheek, making a statement that has since been translated as:

You are a liar - We do not need electricity. Electricity is not going to give us food. We need our rivers to flow freely: our future depends on it. We need our jungles for hunting and gathering. We do not need your dam (S172).

In issuing this statement, the Kayapó warrior presented the Kararaô and Babaquara projects as a threat to the community's territory and culture by outsiders, as is evident in her use of the terms '*our* river' and '*your* dam'. Within Tuíra's words, a divide between 'us' (indigenous communities) and 'them' (the pro-dam coalition) is demonstrated, with the latter group presented as neglecting indigenous identity and rights and restricting the community's future. I understand Tuíra's division between 'us' and 'them' as presenting the construction of hydroelectric dams in Brazil as a site of antagonism. The occurrence of antagonism represents the collision of discourses and identities, revealing the points where identity is contested and limited (Laclau & Mouffe, 1985). The contestation between pro-dam storylines and those of the resistance coalition, particularly those concerning indigenous communities, represents such a collision, with resistance actors highlighting how the Belo Monte and São Luiz do Tapajós dams threaten the livelihoods and cultural identity of the communities impacted (I4; I6; I15; I20; I21).

In presenting the Belo Monte and São Luiz do Tapajós projects as a site of antagonism between pro-dam actors and indigenous communities, resistance actors foreground the planning and

construction of the dams within a wider context of threats and encroachment. Resistance actors and materials argue that, during the period of government by Lula and Dilma, the protection of indigenous communities was lessened and the number of threats to these communities and their territory increased (I15; I16; I20; Q10; S5; S160; S194; S261). Respondents highlighted a weakening of environmental protections in Brazil and the PAC-1 and PAC-2 development policy packages of the PT as representative of an ‘opening up’ of the territories of indigenous communities for agribusiness, mining interests and the further development of hydroelectric projects (I4; I6; I18; I21; Q8; Q10; S28; S184; S253; S283). For example, a letter disseminated by indigenous communities after the 2010 *Terra Livre* (Free Land) encampment foregrounded their resistance to Belo Monte with a wider context of encroachment, reporting that the *Programa de Aceleração do Crescimento* (Growth Acceleration Program, PAC) contained 426 projects that would affect indigenous lands (S122). In light of this wider process, resistance actors argued that the dam project represented one front in a wider context of antagonism between indigenous communities and developmentalist interests (I4; I6; I11; I21).

Resistance actors and materials foreground their discussions of how indigenous communities are impacted by the projects studied in an equivalence between the government’s dam-building agenda and a model of economic development that is described as encroaching upon indigenous territory, denying the rights, livelihoods and identity of these communities (I4; I6; I7; I15; I20; I21; Q1; Q5; Q8; Q13; S68; S70; S158; S160; S277; S278; S279). This is evident in how both projects were discussed within a context of the potential infrastructure, development and extractive projects that were expected to follow them (I6; I11; I18; I21; Q11; S47; S50; S68). For example, a Federal Deputy who has campaigned against the respective projects labelled them “a spearhead to accessing some of the more remote regions of the Amazon for these developmentalist projects” (I20). In articulating these links, the resistance coalition is highlighting how the projects studied should not be perceived as individual cases but part of a wider process of encroachment. For example, a representative of the Brazilian wing of an international EO described how within this context:

... We have a lot of deforestation and invasions of indigenous lands almost every week... mainly [caused] by cattle, agriculture and logging responsible for... [the] expansion of the Amazon frontier (I6).

In making this statement, the interviewee locates hydroelectric dam projects within a wider context of the encroachment of developmentalist activities (such as livestock, agriculture and mining) within the Amazon region. The ‘development at all costs’ economic policy of the PT, described in Chapter 5, is presented in opposition materials as predatory and plundering the environment with limited concern for local communities (S160; S311). For example, one

domestic environmental campaigner argued that, in this developmentalist context, the indigenous populations impacted by the Belo Monte and São Luiz do Tapajós projects are seen as “undesirables and as something to be pushed out of the way of ‘development’ and ‘progress’” (Q8). This statement highlights the view of resistance actors that, within the economic policy of ‘development at all costs’, the indigenous communities impacted are deemed dispensable and deemed by developmentalist actors as blocking the realisation of ‘progress’ - resulting in their being “pushed out of the way” (Q8).

This is with particular relation to the entrance of extractive industries into the Xingu and Tapajós river basins (I4; I6; I20; S31; S105; S111; S140). Extractive companies are understood to hold an interest in the regions of the Amazon in which the Belo Monte and São Luiz do Tapajós are to be built, with a prominent local campaigner against the Belo Monte project, argued: “mining companies worldwide fall[ing] like flies in the Amazon gold” (Q13). This draws on a well-established relationship between the mining and energy sectors in Brazil, with energy created by hydropower often channelled to nearby extractive operations (Barrow, 1988). In articulating the equivalence between the dams studied and mineral extraction, resistance actors highlighted the arrival of the Belo Sun mining project in the area of riverbed now exposed by the Belo Monte project. The project, led by a Canadian mining company, is predicted to cover a 620 square mile area and become the largest open-pit gold mine in Brazil. With Belo Monte nearing completion, the Belo Sun project is discussed as intimately linked to the construction of the dam (I4; I18; I19; I21; S150; S246; S258; S284). One interviewee explained, “it is very coincidental [laughs] that you have Belo Monte, [and then] you have this huge gold mining proposal from a Canadian company in this dry stretch that is downstream from Belo Monte.” (I18). Belo Sun is presented as the next front on the battle between the people of the region - and the resistance networks allied to them - and the encroachment on indigenous territories by these extractivist activities (S61; S91).

Similarly, the impacts of the São Luiz do Tapajós project are articulated as equivalent to the entrance of various other projects into the region, such as the construction of ports in nearby cities, the further development of the 4,476 km highway between Santarém and states in the South of Brazil and numerous mining operations (S103; S224). As a Brazilian Federal Deputy explained in an interview:

If you were to install the Tapajós dam complex, not only would you provide major inroads into that region quite literally for other industries besides hydro-power, agriculture being probably the most important one, but mining is another because there's enormous quantities of mineral resources in the region (I20)

This statement articulates a well-developed equivalence, present in the resistance storyline of antagonism between the São Luiz do Tapajós dam and a wider plan to open up the Amazon basin for navigation (S54; S102; S157; S192; S250; S277). Within the storyline of antagonism, the project is presented as a constituent part of a broader aim, with resistance materials arguing that the agribusiness interests in Brazil are seeking to convert the Juruena, Teles Pires and Tapajós rivers into a 1,000-mile-long waterway, to transport soybeans from Mato Grosso in the south to the Atlantic ports at the mouth of the Amazon (I18; I21; S32; S47; S140). In highlighting these links between the São Luiz do Tapajós project and the waterway project, resistance actors highlight how the Tapajós region represents the “next target” of encroachment (I4), with the dam project only one component in a wider series of threats to indigenous communities (S25; S42; S85). In articulating the links between the Belo Monte and São Luiz do Tapajós dams and the entrance of additional extractive and infrastructure activities into the region, the resistance coalition broadens the storylines of antagonism to highlight future threats to the territory, rights and identity of the indigenous communities impacted by the Belo Monte and São Luiz do Tapajós dams.

‘Us’ versus ‘Them’

The forwarding of the storyline of antagonism by resistance actors repoliticises the projects studied, highlighting the political and commercial interests that support the projects - and articulating the equivalence between these projects and wider processes. The Belo Monte and São Luiz do Tapajós projects were defined by a number of interviewees as representing the entrance of capitalist extraction into both the Amazon rainforest and the lives of the indigenous communities (I4; I6; I7; I15; I20; I21).⁹⁹ For example, an interviewee based at a Brazilian EO argued that the projects represented:

... A new occupation of the land... The lands become part of the financial market, they are sold or flooded for the hydroelectric plant and the people are taken to small city quarters... to become workers, wage earners... (I11).

In making this statement, the interviewee articulates the links between the Belo Monte and São Luiz do Tapajós projects and the advance of developmentalism and extraction into the regions in which the projects are to be built. Resistance materials also highlighted this relationship, arguing that the construction of these projects would ensure economic benefits for dominant groups but further marginalise less-powerful social groups, restricting them of the realisation of their identity

⁹⁹ The creation of this distinction between capitalism and indigenous communities is also evident in pro-dam storylines, with an employee of the Ministry of Mines and Energy telling me that “it is very hard to bring capitalism to the Amazon... everything there falls from the trees. They already have their supermarket in the forest” (Observation, 03/11/2016).

and attainment of livelihoods (Q10; S5; S60; S68; S107; S194; S279; S289). For example, in a May 2016 article, the international NGO advocating for the protection of indigenous communities, Survival International argued that “The Munduruku, like all indigenous peoples, depend on their land for their survival, but industrialized society is trying to steal it and plunder its resources in the name of ‘progress’ and ‘civilization’” (S289). In making this statement, Survival International articulate the equivalence between the São Luiz do Tapajós project and an encroaching developmentalism that will deny the Munduruku community of livelihoods and identity - illustrating the presence of antagonism between these communities and pro-dam actors. The equivalence between hydropower and the subjugation of local communities is a dominant element in how resistance actors present contemporary dam projects. For example, the logo of *Movimento dos Atingidos por Barragens* (Movement of Dam-Affected Peoples, MAB) features the silhouette of a figure, seemingly crucified on an electricity pylon. Two farming tools, symbolising a traditional livelihood, lie at the figure’s feet. The logo articulates an equivalence between the building of a dam, the loss of the figure’s livelihood and the sacrifice of the figure to generate energy.

This presentation of the Belo Monte and São Luiz do Tapajós projects as a site of antagonism between indigenous communities and external interests provides a privileged sign within the storyline of antagonism. In discussing the Belo Monte and São Luiz do Tapajós projects, resistance actors and materials articulate the equivalence between the respective projects and this wider political context, asserting that the projects are symbolic of a wider disrespect of indigenous communities and their territories, with resistance actors arguing that these groups rendered surplus within pro-dam storylines (I6; I7; I8; I15; I21; S261). For example, an interviewee at a domestic human rights organisation developed this equivalence further, explaining that the developmentalist logic argues that:

If a dam has to be built - or hundreds of dams, which are planned - then go on and do it, even if some people have to die or completely [lose] their means of subsistence and their cultural history. Because... we need that, and someone has to pay the price for development (I8).

In making this statement, the interviewee articulates an equivalence between the Belo Monte and São Luiz do Tapajós dams and the antagonism between indigenous communities and those encroaching on their territories, arguing that the development promised by pro-dam actors is, in part, dependent upon the destruction of indigenous communities. As an interviewee at the national arm of an international EO explained, “They come, they don't care about their culture, they don't care about their livelihood..., [They say] ‘They live like animals, they live inside the forest? They don't use full clothes’ [laughs] ‘They are stupid’, They go [unintelligible]... ‘Fuck them and let's

build the dam” (I7). Within this statement, the treatment of indigenous communities in Brazil demonstrates a disrespect, with the communities denied their rights and identity and their lands encroached on by development projects.

The articulation of the equivalence between indigenous communities and the encroachment by external interests is evident in the mural below, found in the village of Alter do Chao, located on the Tapajós river (see Figure 6). The mural depicts a man in a suit (symbolising business), bloated in the face, sucking up the water of the Tapajós through a straw, leaving a boat carrying indigenous figures beached on an exposed riverbed. The individual or group responsible for the mural (unknown at the time of writing) present a storyline that articulates the equivalence between the Belo Monte and São Luiz do Tapajós dams and the encroachment on indigenous territory by external interests. The bloated, pink-faced man represents an *other*, who - straining himself to suck more water through the straw - is denying the indigenous group in the boat of their navigation (the boat), livelihoods (fish) and traditional identity (ties to the river).

Figure 6: Photograph, Alter do Chão (14/11/2016)



The antagonism between pro-dam interests and indigenous communities is evident in how the resistance storyline alludes to a history of conflict between the Munduruku community and the Brazilian state.¹⁰⁰ Resistance materials refer to the Munduruku community’s violent history and present the Munduruku as ‘war-like’ (I4; S27; S42; S49; S88; S179; S267). The Munduruku are presented in news articles as engaged in a “*guerra moderna*” (‘modern war’) against the Brazilian government (S262). For example, a representative of a domestic human rights organisation

¹⁰⁰ The name Munduruku itself is rooted in a history of aggression, assigned by rival communities in the region and is understood to mean ‘red ant’, in an allusion to the historical tactics of Munduruku attacks - which would take place at dawn and overwhelm the adult population of the defending communities (S267).

compared the Munduruku community to “guerillas... fight[ing] a giant” and described how the Munduruku community instilled fear in those working for Eletrobras and other companies engaged in dam construction: “this guy from the government, he was telling me how afraid he was the Munduruku would take him hostage” (I4).¹⁰¹ In revealing this anecdote, the resistance actor presents the Munduruku community as engaged in a violent battle with pro-dam actors, with their history instilling fear in those tasked with planning the project. Resistance materials highlight how the Munduruku community draw from this history of combat when expressing their opposition to the Tapajós project, which is presented as a government-sponsored invasion into their territory (S27; S51; S191; S263; S267).¹⁰² In meetings and events, Munduruku attendees would display their bows and arrows throughout, providing a symbolism of resistance (S27). This display represents an act of discourse that links the historic reputation of the Munduruku with their contemporary resistance to the São Luiz do Tapajós project. In articulating these links, members of the Munduruku community provide a symbolic visual display of resistance, that is evident in the words adopted by the Munduruku leadership argued in a 2016 letter to the British newspaper, *the Guardian*:

The great smoke of *Djurupari* (the evil spirit) is coming deeper into our lands. Ultimately, it will bring everything to an end – even the *pariwat* (white people) who brought it. But we indigenous people are strong. Despite all efforts to exterminate us, we have been preparing for many generations to defend our lands and our people and we will resist to the last Munduruku (S191).

Within this statement, the Munduruku community adopts a language of defence and resistance, transforming their opposition to the São Luiz do Tapajós project into a site of antagonism between their own cultural identity and an *other* (the *pariwat*) encroaching upon their lands. Similarly to the 1989 images of Tuíra’s machete raised to the face of Jose Antonio Muniz Lopes, this portrayal of the Munduruku community develops an image of the warrior resisting injustice and invasion and of strength in the face of adversity. A storyline of antagonism is evident, with the Munduruku community presented as actively resisting encroachment on indigenous territory by a foreign actor intent on the community’s subjugation.

¹⁰¹ In 2013, a group of Munduruku discovered three technicians, conducting preliminary studies for the Tapajós hydroelectric project in indigenous territory. The three men, Djalma Nóbrega, Luiz Peixoto and José Guimarães, were kidnapped by Munduruku warriors, in protest at the conducting of studies without their permission (Reuters, 2013). This abduction prompted a confrontation with the Brazilian Federal Police, sent by President Dilma Rousseff, with the police arriving in a helicopter, two large ships and 40 smaller vessels (S27).

¹⁰² The antagonistic relationship between the Munduruku and the Brazilian government is presented as rooted in an episode in November 2012, when the Brazilian Federal Police raided an illegal gold-mining barge at the Munduruku village of Teles Pires (S51; S264). During the raid, the barge was destroyed and Adenilson Munduruku was shot dead.

In summary, the articulation of the equivalence between the Belo Monte and São Luiz do Tapajós projects and wider processes of encroachment on the territory of indigenous communities foregrounds the contestation over the dam projects as a site of antagonism between pro-dam, developmentalist interests and indigenous groups. This antagonism is a central nodal point within the *storyline of antagonism* discussed, providing a focal point for the organisation of additional elements. In forwarding this storyline, resistance actors highlight how the projects studied symbolise a broader series of threats against indigenous communities in the Brazilian Amazon region (I4; I6; I21; Q10: S26; S60).

The storyline of antagonism moves in two overlapping ways in the resistance materials analysed, with a number of elements articulated within its signifying chain. First, the impacts of the Belo Monte and São Luiz do Tapajós projects on the culture of indigenous communities is highlighted and, second, the infringements of the communities' right to free, prior and informed consent is presented. These elements are articulated into the equivalential chain organised around the nodal point of antagonism discussed above, with the violations of these rights presented as evidence of the disrespect of local populations and their continued mistreatment by the Brazilian state.

A country that “cannot live with difference”

Within the storyline of antagonism, the projects studied are not only presented as having material impacts (related to flooding or deforestation, for example) but as also having direct consequences for the cultural identity and indigeneity of the communities impacted (I7; I8; I7; I17; S212; S283). This articulated equivalence is linked to both contemporary encroachment by developmentalist activities in indigenous territory but also predicated on the perceived similarities between the projects studied and the historical colonial project in Brazil. In articulating these links, resistance actors argue that the Belo Monte and São Luiz do Tapajós projects represents how the Brazilian state has not moved on from its historical subjugation of indigenous communities and remains a country that “cannot live with difference” (I8).

Resistance actors discussed the loss of livelihoods of traditional communities as representing the traumatic transition from tradition to a developmentalist view of modernity (I8; I11; I17). For example, a journalist, who has written extensively on issues of development in Amazônia, argued that analysis of the Belo Monte dam needed to explore “how a project like that really changes [the] lives of people. The memories they had about this place. This kind of intimacy” (I17). Similarly, one interviewee explained that the experience of many represented a difficult transition from rural livelihoods to a new way of life: “until yesterday, the only thing that they had done in their entire life was to fish and now they are going to have to plant cocoa and they don't know how to do that” (I8). The interviewee argued that a parallel could be found in their own life, “It's

like [them] coming in here - 'I'm a lawyer', [but they say] 'Ok, now you're going [to be] a Doctor because we don't want you to be lawyer anymore'" (I8). In making these statements, the resistance actors argue that the personal trauma for many impacted by the Belo Monte can be found in the transformation of traditional livelihoods and their forced transition into a new form of economic organisation. This equivalence highlights how the impacts of Belo Monte on indigenous communities should not be understood as only related to direct, material impacts, such as flooding, as studied in official impact assessments. Instead, the indirect impacts - such as the disruption of livelihoods - represents an irreversible and dramatic transformation.

In advancing a storyline of antagonism, resistance actors highlight this change in livelihoods as restricting and altering the cultural identity of the community, with those impacted becoming detached from their previous identity and forced into adopting new ones (I4; I6; I11; I21). An interviewee at a national EO forwarded a similar argument, explaining the transition faced by traditional communities in the region:

... They have to become workers, wage earners... There are families that go from living by the river, from fishing, from gathering products from the forest... to becoming housemaids... That's the transformation of these people's lives and that's why there's a struggle, that's why it is controversial (I11).

This articulates a new sign, related to impacts to the cultural identity of impacted communities, into the chain of equivalence. The projects are foregrounded as a site of antagonism between local communities and an encroaching developmentalism that not only alters the landscape but also the cultural lives of communities affected. By highlighting the cultural impacts of the Belo Monte project, resistance actors are illuminating the presence of antagonism within the interplay and contestation surrounding the dam. Resistance actors present the Belo Monte project as restricting and stifling the full realisation of the identity of the indigenous community - with the contest with an identified *other* (of the pro-dam coalition) simultaneously defining and modifying the parameters of this identity (I8; I11; I21).

The Belo Monte project is described as representing a modification of indigenous culture in the region and the fragmentation of indigenous society in the Xingu (I21; S32; S61; S177). Discussions of the deprivation of a community's ties to cultural heritage are centred on accusations that the project's mitigation scheme resulted in numerous irreversible impacts for the indigenous way of life in the region. This is with reference to the *Plano Emergencial* (Emergency Plan) a programme, run by Norte Energia and linked to a condition present in the project's construction license, that allocated over R\$176 million to 11 indigenous areas impacted by the Belo Monte project to support the communities' adaptation to the impact of the Belo Monte

project (S159).¹⁰³ The scheme, conducted in the Xingu basin between 2010 and 2012 and affected even the remotest village, is harshly criticised by resistance materials (I21; S32; S63; S159).¹⁰⁴ Central to this criticism was the fragmentation of the indigenous way of life and culture, due to the rapid influx of manufactured and industrialized goods into the region. Resistance materials link the Emergency Plan to increased rates of alcohol abuse, diabetes and hypertension due to the proliferation of junk food into their diet, increased infant mortality, increased household waste and increased rates of drug use and prostitution within the communities subject to the mitigative measures (S32; S61; S63; S65; S212). Within these accounts, indigenous communities stopped planting crops, ceased to rely upon traditional medicine and purchased plasma televisions and junk food (S61; S63). In positioning the sign related to the Emergency Plan within the storyline of antagonism, resistance actors articulate the equivalence between these schemes and the restriction and transformation of the culture of the indigenous populations involved in the scheme.

The transformation of the culture of indigenous communities is framed by a number of resistance actors using a language of ethnocide - understood as representing the deliberate and systematic destruction of a group's culture. (I21; S61; S158; S283; S289). For example, in a 2014 interview in *El Pais*, Thais Santi, a public prosecutor in Altamira, described the Arara village of Cachoeira Seca as a scene reminiscent of the Holocaust (S61). In adopting a language of ethnocide, resistance actors not only argue that the Emergency plan has impacted upon the identity and culture of indigenous communities but also that the plan represented a conscious, deliberate effort by the pro-dam coalition to secure the acquiescence of indigenous communities, with little concern for the consequences. This argument is based on the assertion that Norte Energia had deliberately and consciously failed to comply with conditions, present within the environmental licenses, for the protection of indigenous communities - instead, relying on the use of the Emergency Plan to gain support (I21; S61; S212).¹⁰⁵

Underpinning this criticism of the Emergency Plan is the perception, present in resistance materials, that the scheme was used to co-opt indigenous communities into supporting the

¹⁰³ Within this scheme, a company, established in Altamira and controlled by Norte Energia, distributed R\$30,000 in merchandise and goods to each village on a monthly basis. The Caciques of each individual community submitted a list of goods required - including boats, fuel, televisions, sugar and soft drinks - and the company would later deliver them (S61). By 2012, the scheme represented a total expenditure of R\$212 million. In 2014, Norte Energia reported that, under this policy, 699 houses were to be built and 1.2 million litres of fuel, 326 ships and sails, 564 outboard engines, 96 electricity generators and 44 vehicles were delivered to these communities (S251).

¹⁰⁴ In 2013, the Kayapó rejected an offer of US\$9 million from Eletrobras to fund development projects in the communities, deeming it 'dirty money' (S14). However, other communities did receive these compensation packages.

¹⁰⁵ In December 2015, the MPF presented this argument in a legal setting, filing a lawsuit that sought recognition of the Belo Monte scheme as representing the occurrence of ethnocide committed by both the Brazilian state and Norte Energia (S212).

presence of Norte Energia in the region and the construction of Belo Monte (I20; I21; S32; S61; S177). As an interviewee explained, the Emergency Plan was designed to give “[some] indigenous people... a feeling of ‘progress’... dividing the people, generating conflicts among the indigenous communities... creating all the conditions for the construction to take place and at the same time for the destruction of a millennial culture” (I20). The activist for the NGO campaigning for the protection of the Amazon rainforest, Amazon Watch, Máira Irigaray argued that these policies represented a process of bribery, with Norte Energia using materials to provide incentives to indigenous communities to accept Belo Monte’s construction (S177). Irigaray translated the words of Sheyla Juruna, from the Juruna community affected by the Emergency Plan, who argued that “Norte Energia came and because they couldn’t ‘buy me off’, they made promises to my cousin who took the leadership from me and got a truck instead, so he would stay quiet” (S177). The use of goods to gain the support of local communities was discussed by both pro-dam and resistance actors in interviews. An interviewee, based at the Brazilian arm of an international EO, explained that they had directly experienced this use of goods to co-opt indigenous peoples “I went to a dam and there was a pile of poles... Something like 50 [poles]... And I say ‘What’s this for?’ and [they say] ‘for the indigenous chiefs.’ They didn’t know who [to give them to] but they had [them] already” (I7). Similarly, a construction manager for Norte Energia at Belo Monte joked about the role of these goods in negotiations with indigenous communities. The interviewee argued that when indigenous communities occupied roads and construction sites: “we have to negotiate with them and... we have to... give away more items [laughs] to open the roads and continue the construction” (I19).

Despite contemporary international concern for the cultural protection of indigenous communities, as evident in the 2007 United Nations Declaration on the Rights of Indigenous Peoples,¹⁰⁶ resistance actors do not scale up these local grievances to appeal to a more-international storyline of such rights. Instead, resistance actors foreground their critique of the Emergency Plan in an articulation of the equivalence between the contemporary projects and the colonial era. Resistance actors liken the use of material goods and items to encourage the support of Belo Monte from local indigenous populations to the historical experience of colonialism in Brazil (I4; I6; I8; I11; I21). The Emergency Plan is presented as a repetition of the experience of indigenous communities in the colonial era, with the provision of funds and materials described as repeating the use of ‘trinkets’ to secure their trust and dependence of pre-1500 communities (S62; S63; S70; S123; S158). In articulating the equivalence between the projects studied and the colonial experience of indigenous communities, resistance actors are alluding to a long and violent history of the incursion on indigenous and traditional lands by developmentalist or

¹⁰⁶ This declaration, adopted in 2007, argues that states should ensure that the self-determination, rights and cultural protection of indigenous communities (UNDRIP, 2007).

extractivist operations in Brazil during the colonial period (I6; I8; Q8; S268; S123).¹⁰⁷ A number of interviewees and resistance materials articulated the equivalence between this experience and the historical context of resource extraction that has occurred since the arrival of Europeans in Brazil in 1500 (I6; I8; Q8; S8; S73; S123). For example, in exploring which groups have a financial interest in the construction of hydroelectric projects in the Brazilian Amazon, the domestic NGO, *Mais Democracia!* link the contemporary projects to the process of appropriating indigenous land from the sixteenth century, foregrounding the local grievances of the indigenous communities impacted by Belo Monte within a historical process of subjugation (S8).

In articulating the links between the Belo Monte project and the colonial era, resistance actors challenge the pro-dam storyline of sustainability by illuminating the cultural impacts, absent in official storylines, faced by local indigenous communities and asserting the similarities between the experience of those in the Xingu and Tapajós basins and the fate of indigenous groups at the time of colonisation and extraction by the Portuguese Crown (I6; I8; I11; I21; S8). The Emergency Plan is presented as a process of bribery of local communities, with material gain used as a ‘wedge’ to divide popular resistance against the project, that had disastrous consequences - disconnecting local communities from their culture and disrupting their livelihoods (I11; I20; I21; S283). In presenting this argument, members of the resistance coalition broaden the equivalential chain present in the storyline of antagonism to argue that Brazil is both bound to its colonial history and, significantly, repeating it (Q8).

Resistance actors also highlight how the construction of the São Luiz do Tapajós project would also have resulted in irreversible impacts on the culture of the indigenous communities impacted. For example, in a 2016 article on its website, international indigenous rights organisation, Survival International discussed the São Luiz do Tapajós project under the headline of “Stop Brazil’s Genocide”, presenting the project as a direct threat to the cultural heritage of the Mundurucu community (S289). The use of the term ‘genocide’ further evokes histories related to the widespread use of violence against indigenous communities during the Brazilian colonial era (Hemming, 1978; 1987; Ramos, 1984). However, in the case of São Luiz do Tapajós project, this language is adopted to describe the destruction of a series of spiritual sites. The dam is presented in resistance materials as threatening a number of Mundurucu cultural sites, including *Travessia dos Porcos* (‘Crossing of the Pigs’), a spiritual site linked to a revered ancestor and *Garganta do Diabo* (‘Devil’s Throat’), a set of rapids having significance due to a vast wealth of fish (S250). It is at this site that the main complex of the São Luiz do Tapajós was to be built. Resistance

¹⁰⁷ I understand this period as extending from 1500, with the arrival of Portuguese settlers, to the 1815 Congress of Vienna, when Brazil was elevated to the status of a kingdom in union with Portugal within the *Reino Unido de Portugal, Brasil e Algarves* (‘United Kingdom of Portugal, Brazil and the Algarves’), increasing its administrative independence.

materials argue that the presence of these sites of spiritual symbolism resulted in the projects demonstrating a threat to not only indigenous territorial rights but also to their culture and intrinsic links to the land itself (S1; S109; S250).¹⁰⁸ The location of a hydroelectric complex at a site of spiritual significance for the Munduruku community is presented as a symbol of the government's disrespect for the community and their intrinsic relationship with the river, with the presence of these sacred sites absent in the project's official Environmental Impact Assessment (S109; S250).

In summary, in discussing these impacts, the resistance coalition articulates the equivalence between the Belo Monte and São Luiz do Tapajós projects and a loss of cultural identity and traditional livelihoods to advance a storyline that presents the impacts of the dams as representative of a denial of the traditional cultural identity of the communities impacted, with these group's distinctiveness and difference neglected by the pro-dam coalition. When organised in relation to the nodal point of antagonism between indigenous communities and external encroachment, this equivalential chain positions the elements related to the disruption of culture to become part of a wider storyline that highlights the similarities between the contemporary dam projects and the fate of the indigenous communities during the colonial history of Brazil. With these assertions of equivalence between the projects studied and the cultural destruction of indigenous communities, the dominant storyline of sustainability is broadened to highlight how the Belo Monte and São Luiz do Tapajós projects are equivalent to a historical process of the subjugation of indigenous communities to benefit external interests.

A failure to consult

The second act of articulation present within the signifying chain of the storyline of antagonism concerns the critique of how both the Belo Monte and São Luiz do Tapajós projects failed to adequately consult with local populations and ensure their participation within the decision-making process (I3; I7; Q7; Q9; S93; S141; S203; S279; S291; S310). In making this argument, resistance actors challenge official assertions of how local communities have been provided with opportunities to be consulted. FUNAI has reported that it had held 50 meetings between 2007 and 2012, in an attempt at dialogue with the indigenous communities affected by Belo Monte (S128). The organisation, the government body that establishes and conducts policies related to Brazil's indigenous population argued in an additional document that approximately 8,000 participants, including 200 representatives of indigenous communities, attended public hearings held to discuss the project (S127).

¹⁰⁸ The impact on these sites is presented as of a similar magnitude to the destruction of the Munduruku sacred site of Sete Quedas by the neighbouring Teles Pires hydroelectric project, constructed on a tributary to the Tapajós (S250; S263). The site was destroyed with dynamite in 2014, making way for the facility's reservoir. Sete Quedas was worshipped by the Munduruku as a site of the spirits of deceased elders of the community and has become a symbol of the effects of hydropower projects on sites of cultural and spiritual importance in Brazil (S48; S211).

However, these assertions of consultation with local indigenous communities were questioned by resistance actors. Resistance materials critiqued how these meetings were organised, managed and reported – arguing that consultations are often tokenistic and focused on quelling dissent and debate surrounding the project (S101; S160).¹⁰⁹ For example, one respondent, working for a South American regional NGO focused on access to justice, listed the numerous deficiencies in the official consultations surrounding both the Belo Monte and São Luiz do Tapajós projects: “the government failed to provide translators, meetings used too much technical terminology and these meetings were conducted before the conclusion of EIA [Environmental Impact Assessment], so they weren’t informed about all of the project’s impacts” (Q9). Similarly, an interviewee, working at the domestic arm on an international EO described how, in the case of Belo Monte, pro-dam actors would declare routine social gatherings as representing processes of consultation, arguing that: “people would... sometimes invite friends for a barbecue and call that a public hearing - and everyone [would] say "It's okay!" (I9). In making these statements, the interviewees directly discredit and critique the argument of the pro-dam lobby. For example, with FUNAI previously asserting the completion of the necessary consultations with local communities, it is notable that a representative of the organisation rejected these claims in an interview – arguing that a number of these reported meetings did not discuss either the project or its consequences (I15). In making these statements, resistance actors characterise these asserted efforts at consultation as trivial and non-transparent, with consultations announced at personal social occasions, closed off to the public or not occurring at all (I9; I15; I18; I21).

A critique of participatory mechanisms is also evident in discussions of the São Luiz do Tapajós project. With pro-dam actors asserting that the adequate measures for participation have been completed (S284), resistance actors have argued that the efforts of pro-dam actors to consult impact communities have, in fact, been limited (S202; S204; S210; S214). Interviewees argued that there was little attempt to officially engage with the Munduruku community despite the group’s efforts to secure such consultation (I20; I21; S202).¹¹⁰ In highlighting the failure of pro-

¹⁰⁹ Resistance actors’ assertions of the tokenism of processes of consultation are also evident in critical scholarship on the topic, with scholars arguing that participatory mechanisms are used to depoliticise projects and policies (Kothari & Cooke, 2000; Chhotray, 2004; 2005; Cariño & Colchester, 2010; Fontana and Grugel 2016).

¹¹⁰ In the wake of this episode, it was asserted by resistance actors that the Munduruku opposition to the São Luiz do Tapajós project learned the lessons of Belo Monte (I4; I6; I18; I21). This can be seen in the provision of, what has become known as the 2014 Munduruku Protocol, detailing that the community was willing to hear the government’s plans but required transparency and the provision of full and accurate information for such consultation to take place. The document also detailed the need for a consultation to include dialogue with the government understanding what the community has to say (S247). In one interview, it was argued that the document never received a reply from the government (I21), which later published the official announcement of the auction of the São Luiz do Tapajós project without receiving the necessary consent from the Munduruku community (S310).

dam actors to consult with the local population, resistance actors argue that the planning and construction of the Belo Monte and São Luiz do Tapajós dams represent the denial of the rights of the indigenous communities impacted. This criticism of the project, linked to a perceived lack of consultation, was presented as representative of the violation of the community's right to free, prior and informed consent (FPIC) (I4; I8; S203; S204; S210; S214).¹¹¹ The right to FPIC can be understood as representing the inherent rights of indigenous communities to their lands whilst respecting and protecting their authority over the uses of such territory. Numerous opposition actors appealed to this right in interviews, questionnaires and resistance materials analysed (I3; I7; Q7; Q9; S1; S109). Discussing the case of Belo Monte, an interviewee working at a Brazilian human rights group argued that the timing of the consultations reported by the pro-dam lobby demonstrate a violation of a right to FPIC, arguing: "consultations should have happened before, to build these Environmental Impact Assessment studies... [but] they take place after the project has been tendered. Sometimes, even after the BNDES has already set out the loan terms" (I8). For the interviewee, the result was that: "if the communities there decide to say No, actually there is no way back. Because everything is already there, the contract is already signed" (I8). In making this statement, the resistance actor is asserting that the pro-dam coalition failed to adequately consult with the local population *prior* to the organisation of the project, resulting in a neglect of the right to FPIC. The reason for this lack of consultation was presented by resistance actors as symbolic the pro-dam coalition's focus on ensuring the project's success. An interviewee representing the Brazilian arm of an international EO explained that, although the pro-dam lobby asserted the occurrence of FPIC, this represented an instrumental process of legitimation, rather than the fulfilment of a community's right (I7). In making these statements, resistance actors assert a legal critique of the projects studied and challenge pro-dam assertions that the community had been consulted regarding both projects. This act of articulation further develops the storyline of antagonism, with the threats to indigenous communities also characterised as a denial of their rights.

The articulation of the equivalence between the projects studied and a denial of the right to participation, consultation and consent critiques official narratives that assert the adequacy of existing participatory mechanisms and foregrounds this critique within a judicial language, linked to the human rights of the communities impacted - with the Belo Monte and São Luiz do Tapajós projects presented as neglecting the rights of the communities affected (I8; I15; Q1; Q8). For

¹¹¹ This right represents the right of indigenous communities to self-determination and control over their territories and their participation in the decision-making processes related to schemes to be built within these lands. The foundations of this right to FPIC can be found in the 1989 Indigenous and Tribal Peoples Convention, Convention 169 of the International Labor Organization (ILO 169) which entered into force in 1991 and the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Brazil ratified ILO 169 in 2002 and codified the right to FPIC within its constitution.

example, a representative of the MPF argued that “the projects are made to violate [human rights]. They know that they are doing that but they deny all [of] the time” (I14). In casting the projects as representing the violation of the community’s rights, resistance actors argue that the impacted communities were viewed by the pro-dam coalition as passive actors in the participation process, with the process itself seen as a formality to be completed (I11; I14; I21; Q13; S26; S89). For example, after a 2009 meeting to discuss the Belo Monte project, Bishop Erwin Kräutler, the prelate of the Territorial Prelature of Xingu, argued that the dialogue between the government and those impacted was instrumental and for purposes of public relations only (S80). In asserting this perceived instrumental nature of participatory mechanisms, resistance actors argue that the pro-dam coalition’s commitment to consultation with local communities was limited, with the projects to be built regardless of local grievances (I11; I14; I21; Q13; S80).

When organised in relation to the nodal point of the antagonism between indigenous communities and economic development, this discussion of FPIC incorporates an argument related to how the rights of impacted communities have been denied to ensure the continued encroachment on indigenous territories. A number of resistance actors argued that the government was deliberately overruling the rights of these communities in the name of economic development (I8; I15; Q1; Q7; Q8). For example, one respondent, a Brazilian researcher, argued, “governments turned them [the projects] into a matter of ‘honour’ to send the message to large corporations that... [it] was willing to overrule indigenous rights, local traditional communities’ rights” (Q7). The perceived failure of the pro-dam coalition to adequately consult the local indigenous communities is articulated within the resistance storyline as illustrative of and equivalent to a contemporary disrespect, held by the pro-dam coalition, towards the communities impacted by the Belo Monte and São Luiz do Tapajós (I4; I6; I21; S72; S130; S310). Resistance actors and materials accused the pro-dam coalition of not wanting to hear the voices of indigenous communities impacted by hydroelectric projects and, instead, concentrating on ensuring the passage of the projects from planning to construction (I18; I20; I21; S26; S72; S101; S158; S160; S212; S256; S269; S289).

This storyline represents a process of ‘scaling up’, with the experience of local groups (related to a lack of participation and consultation) presented as symbolic of a failure of the pro-dam coalition to adhere to national and international human rights norms related to free, prior and informed consent. In highlighting these links, resistance actors as not only impacting indigenous communities in material terms but as also symbolic of a wider neglect of their rights. Appeals to the human rights of the indigenous communities impacted provide both a symbolic and legal power for the resistance coalition. The symbolic power of the storyline can be found in how its adoption allows resistance actors to frame the project within a wider, international agenda of human rights protection and the rights of minority populations. The translation of this symbolism into legal critique represents the opposition’s development of a wide-ranging moral and legal

claim for justice (Cariño & Colchester, 2010; Hanna & Vanclay, 2013; Riethof, 2017), with the resistance actors advancing that the lack of consultation and participation represents the denial of the rights of the community, with these rights guaranteed at both the national and international level (I4; Q9; S75; S175).

With the element related to the right to FPIC articulated within its signifying chain, the storyline of antagonism is translated into a powerful legal critique of the projects in question, based on social impacts faced by local communities - and the pro-dam coalition's neglect of this community's right to participation, mitigation of impacts and legal redress. Resistance actors highlight the links between notions of human rights and contemporary understandings of sustainable development to challenge and reconfigure the dominant storyline of sustainability. This is with reference to the location of discussions of social equity and human rights within contemporary sustainable development agendas (McGoldrick, 1996; Arts, 2017; Winkler & Williams, 2017). The United Nations has previously asserted that the protection the human rights of individuals and communities forms a central part of achieving goals of sustainable development (UN, 2016). This is evident in the Sustainable Development Goals contained in Agenda 2030, which call for society to "leave no one behind." The 2016 Agenda 2030 for Sustainable Development contains 21 references to the term 'rights' and refers to 'participation' ten times (Arts, 2017). By articulating the equivalence between the projects studied and the denial of the rights of the communities impacted, resistance actors are able to challenge the dominant storyline of sustainability, asserting the unlawfulness of the projects studied (in terms of participation of local communities) and point to the importance of the rights of these communities in defining the 'sustainability' of the projects (I4; I6; I21). In presenting this argument, the resistance coalition argues that the pro-dam storyline of sustainability neglects the collective rights of indigenous communities, with these groups excluded from the sustainable development promised in the pro-dam discussions of the projects and their rights disregarded by pro-dam actors.

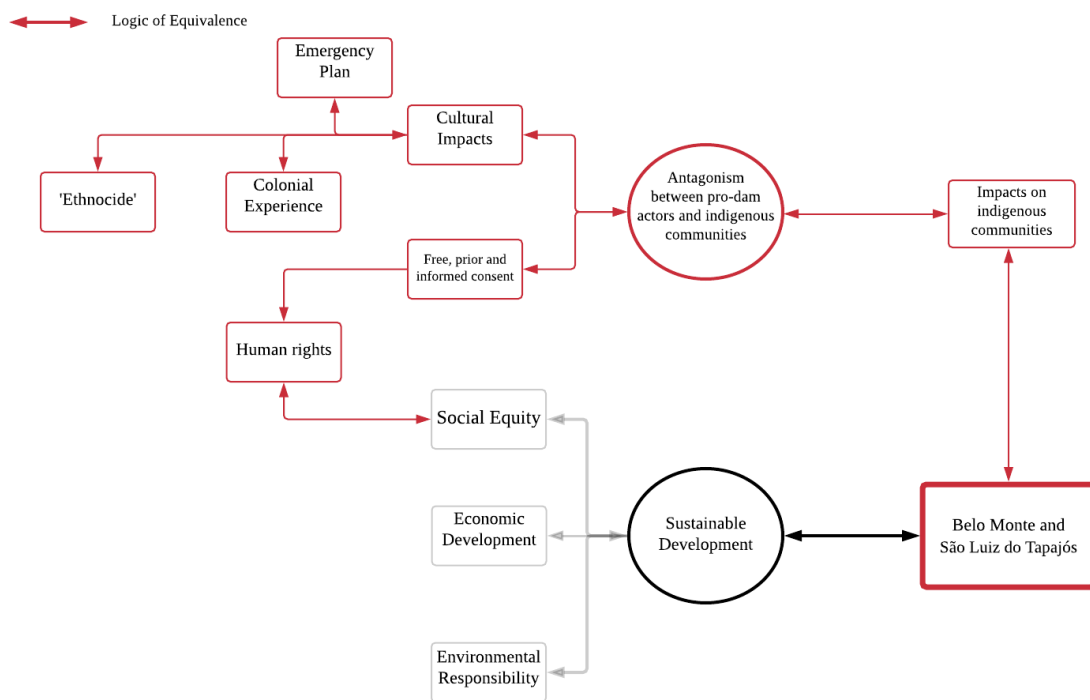
In summary, resistance actors articulate the equivalence between the Belo Monte and São Luiz do Tapajós projects and a denial of the rights of the indigenous communities affected to free, prior and informed consent to challenge assertions of government actors that the affected groups have been adequately consulted and their grievances heard. The introduction of this element into the signifying chain widens the resistance storyline of antagonism to highlight how the projects studied have not only impacted upon the livelihoods and cultural identity of those affected but that these impacts have occurred with limited concern for the rights of these groups to be heard.

Conclusion

This chapter has focused on the storyline of antagonism advanced by the resistance coalition that foreground opposition to the Belo Monte and São Luiz do Tapajós projects within the denial of

the identity, culture and rights of the indigenous communities predicted to be impacted. After outlining the centrality of these communities within the resistance coalition, I identified a three primary acts of articulation: 1) the equivalence between the projects studied and wider threats to indigenous communities; 2) the equivalence between Belo Monte and São Luiz do Tapajós and the denial of indigenous cultural identity; and 3) the equivalence between these dams and the violations of the communities' human right to free, prior and informed consent. The positioning of - and relations between - these elements are illustrated in Figure 7 below.

Figure 7: A storyline of antagonism



In combination, these acts of articulation present a storyline that highlights how the indigenous communities impacted by the Belo Monte and São Luiz do Tapajós projects are presented as ‘surplus’ in the eyes of the pro-dam coalition, with their rights trampled upon and their cultures fragmented in the name of Brazilian development and energy security (I7; I8; I11; I20; I21; Q8). The dominant storyline of sustainability advanced to legitimise the Belo Monte and São Luiz do Tapajós projects is reconfigured, with the storyline of antagonism foregrounding the resistance against the projects studied within a language of colonialism, encroachment and rights-violations. In foregrounding their resistance within the rights of indigenous communities, resistance actors scale up the local grievances of indigenous communities into a wider storyline that critiques the projects based on its role within a wider threat to indigenous communities in Brazil - and tie their resistance to the Belo Monte and São Luiz do Tapajós projects to the role of social equity and human rights in sustainable development agendas.

Chapter 8

The cancellation of the São Luiz do Tapajós dam: An emergent storyline of vigilance

In this chapter, I turn to the trajectories of the storylines discussed in previous chapters after the 2016 decision to ‘archive’¹¹² the São Luiz do Tapajós project, removing it from the environmental licensing process (I12; S151; S152; S153). Previous chapters have discussed three central storylines forwarded by resistance actors: the storyline of repoliticisation, the storyline of impacts and the storyline of antagonism. In this chapter, I explore how resistance actors refer to and reconfigure these previously-discussed storylines to explain the decision and reflect upon its significance. With the storylines of pro-dam and resistance coalitions engaged in a prolonged process of interplay and contestation, the removal of the São Luiz do Tapajós project from the licensing process represents an opportunity to explore how actors respond when this contest is seemingly over. To do so, I draw upon the concept of dislocation, defined as the exposure of a discourse to events outside of its control, challenging its ability to address emergent issues and breaking apart its signifying chain (Laclau, 1990). In response to a process of dislocation, actors forward new storylines - consisting of emergent elements and acts of articulation - to make sense of the event. This process of dislocation is evident in the storylines provided by pro-dam actors to address the archival of the São Luiz do Tapajós, with pro-dam actors reverting to previous acts of articulation. In this chapter, I explore to what extent the 2016 decision results in a continuity or change of the resistance storylines profiled in previous chapters.

In responding to the archival of the São Luiz do Tapajós project, resistance actors reconfigure the acts of articulation discussed in previous chapters, with the signs related to corruption, the economic policies of the *Partido dos Trabalhadores* (PT) and President Dilma Rousseff rearticulated to explain the reasons behind the 2016 cancellation of the São Luiz do Tapajós project. In addition, a number of new acts of articulation are detected, representing a reconfiguration of both the storylines of repoliticisation, impacts and antagonism. New elements present in the post-cancellation signifying chain include the equivalence between the Belo Monte and São Luiz do Tapajós dams and an emergent political antagonism, related to the policies of the government of President Michel Temer (2016-present) and the *bancada ruralista* (ruralist bench) political faction. This reconfiguration of resistance storylines, absorbing additional

¹¹² Rather than relating to the permanent suspension of the project, this term is related to its temporary removal from the environmental licensing process. Nevertheless, the decision to ‘archive’ represents the assertion that the project, in its current formulation, is not of an adequate standard to move forward into the construction phase.

elements into the equivalential chain, represents a new act of repoliticisation, with the cancellation of the São Luiz do Tapajós project presented as one stage in a contest between resistance actors and political interests threatening environmental protection and the rights of indigenous communities. Resistance actors challenge the rationale, present in official accounts, that the 2016 decision is based on a series of concerns about social and economic impacts, by locating it within a changing political context. In foregrounding the 2016 decision in a shifting context, resistance actors forward a new *storyline of vigilance* that asserts that these political changes have resulted in emergent threats and, as this context changes further, will likely result in a return of the São Luiz do Tapajós project and their resistance to it.

This chapter is divided into four sections. In the first section, I describe the 2016 decision to remove the São Luiz do Tapajós project from Brazilian energy plans and discuss it as an example of ‘dislocation’ of a pro-dam storyline of sustainability. In the second, I chart the processes of change that occur within the storyline of repoliticisation. In the third, I turn my attention to the emergence of a new storyline of social and environmental impacts. I then explore the reconfiguration of the storyline of impacts before discussing the alteration of the storyline of antagonism. In the final section, I describe how, taken together, these reconfigured storylines assert that the São Luiz do Tapajós may return in the future – resulting in an emergent storyline of vigilance.

The cancellation of the São Luiz do Tapajós project

On 19th April 2016, the *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (IBAMA) suspended the environmental licensing process for the São Luiz do Tapajós project. This decision was made in response to the publication of a report by FUNAI that confirmed the demarcation of the 178,000 hectares Sawré Muybu territory of the Munduruku community. This area, now-protected as traditional land, had been independently demarcated by the Munduruku community in 2014 in an effort to block the construction of the São Luiz do Tapajós project, that would have flooded 7 percent of the territory (S28; S53; S129).¹¹³ The suspension of the project was followed by an additional decision to deny the project its preliminary environmental license (*Licença Prévia*), which certifies that a project is environmentally feasible, by IBAMA on 4th August 2016 (S151; S152; S153).

¹¹³ Provided with technical assistance by Greenpeace Brasil (I6), members of the Munduruku community traversed the territory affixing signs at its edges to affirm the lands as held by the community. This signage imitated the official signs used elsewhere by FUNAI (S360). This action is presented by resistance actors as representing the Munduruku’s ingenuity in opposition, with the process of self-demarcation provided a novel approach to demonstrating the community’s territorial rights (I6; I15; I16).

The official reasoning behind this decision, based on consultation between IBAMA, FUNAI and the *Ministério Público Federal* (MPF), was the incomplete nature of the Environmental Impact Assessments submitted to the regulator, which had failed to correct a number of inadequacies in previous submissions (I12; S151; S152; S153). This reasoning is similar to the resistance storyline of impacts, with IBAMA providing comparable assertions by voicing concerns that the social and environmental impacts of the project were not clear - with this uncertainty rooted in the incomplete nature of the official EIAs (I12; S151; S152). As a representative of IBAMA explained: “The environmental assessment was... very bad regarding [the absence of] technical information and we just said ‘No, with this, we won't give any license with this kind of information.’” (I12). Interviewees from IBAMA, FUNAI and MPF highlighted that the lack of information regarding the impacts of São Luiz do Tapajós were the result of a perceived complacency of the consortium submitting the documents, *Grupo de Estudos Tapajós* (I12; I14; I15). For example, a representative of IBAMA explained that the authority had requested information on at least a hundred factors, processes or impacts but that the consortium behind the project had failed to address these concerns and provide updated information (I12). Similarly, a representative from the environmental licensing division of FUNAI compared the EIA of the São Luiz do Tapajós project to that of Belo Monte, arguing that “When [its EIA is] compared with São Luiz do Tapajós, Belo Monte was wonderful, São Luiz do Tapajós was rubbish” (I15). In making these statements, these bureaucratic actors argue that it was the weaknesses of the documents - lacking technical information and failing to accurately detail impacts - that led to the removal of the São Luiz do Tapajós project from the environmental licensing process (I12; I14; I15; Q8).

The decision to archive the São Luiz do Tapajós project based on a reasoning of an uncertainty of social and environmental impacts challenges the pro-dam storyline of sustainability. With the environmental licensing process representing a key site in which a dam's sustainability credentials are asserted and accepted, IBAMA's 2016 decision threatens the signifying chain that pro-dam actors have articulated between the dams and notions of environmental responsibility, as well as the moral legitimacy that such an equivalence constitutes. I understand this challenge as representing a process of ‘dislocation’, in which storylines disputing them are confronted by an event that challenges or restricts the particular acts of discourse contained within them. The exposure of a discourse to political forces and events outside of their control challenges its logics of equivalence and difference, creating a possibility for the creation and emergence of new acts of discourse (Laclau, 1990; Howarth & Stavrakakis, 2000; Torfing, 2005). With a storyline being unable to absorb or explain a new process or event - and bring closure to a certain structure of meaning - elements of this discourse are dislocated from the signifying chain. In response to this dislocation, actors may articulate a new chain of signifiers, around a newly-formed nodal point, to make sense of the new process or event (Laclau, 1990; Stavrakakis, 2000).

Despite responding to the cancellation of São Luiz do Tapajós, few pro-dam actors continued to forward a storyline of sustainability, with limited assertions of the project's environmentalist credentials or the mitigation of social and environmental impacts (I10; I12; I15; S21; S270). Instead, pro-dam actors reverted to previous acts of articulation to criticise the decision. When discussing the cancellation of the project, pro-dam actors reverted to previous acts of articulation that foregrounded hydroelectric dam projects in assertions of energy security and the context of power cuts in the 2001 and 2002 energy crisis – which provided a previous storyline of legitimacy for the Belo Monte project (Atkins, 2017). For example, in response to IBAMA's decision, the President of *Empresa de Pesquisa Energética* (Energy Research Company, EPE), the organisation that calculates Brazil's energy needs, Luiz Barroso told *Folha de S. Paulo* that the cancellation of São Luiz do Tapajós may result in increased energy costs for consumers (S21). Similarly, a representative of the *Ministério de Minas e Energia* (MME) argued that, despite the cancellation of the São Luiz do Tapajós dam, Brazil will need to continue to invest in hydroelectric dams to meet energy demand (I10). This represents a return to previous acts of articulation of the equivalence between hydropower and a techno-fix for Brazilian energy insecurity, with popular concerns regarding blackouts re-articulated into the post-archival signifying chain (Atkins, 2017).

Similarly, proponents of the project returned to storylines that denied the impacts of the project on indigenous communities (S270), demonstrating a focus on discrediting the arguments of resistance actors related to impacts on indigenous communities rather than asserting the sustainability of the project. For example, in response to the cancellation of São Luiz do Tapajós, a representative of MME argued that those planning the dam were unaware of the presence of an indigenous population in the region. In making this statement, the pro-dam actor is returning to a storyline, described in Chapter 7, that denies the impact of the project on indigenous populations in the region (I10). With pro-dam actors returning to previous storylines to criticise IBAMA's 2016 decision, I understand the suspension of the licensing process of São Luiz do Tapajós, due to an uncertainty regarding social and environmental impacts, as a moment of dislocation that challenges the pro-dam storyline of sustainability. The archival of the project represents an event that the pro-dam storyline of sustainability cannot adequately address or explain due to IBAMA's decision using a language that questions the assumed sustainability of the projects in question.

In response to the archival of the São Luiz do Tapajós projects, the resistance storylines discussed in previous chapters are also subject to processes of both continuity and change. In response to the 2016 decision, resistance actors articulate the equivalence between IBAMA's decision a number of emergent elements, previously excluded to the field of discursivity. In the sections below, I will explore the continuity and change within these resistance storylines, discussing how

the chains of equivalence detected in previous chapters have reconfigured in response to the project's cancellation.

The storyline of repoliticisation: The continued role of political agency

The storyline of repoliticisation, discussed in Chapter 5, was advanced by resistance actors to illuminate the political character of the Belo Monte and São Luiz do Tapajós dams and highlight the political interests committed to their construction. This articulated a number of elements within its signifying chain, including the developmentalist policies of the *Partido dos Trabalhadores*-led (PT) government, with particular reference to the political career of President Dilma Rousseff; the demonisation of opposition networks, constructed as equivalent to the historic policies of the military junta that ruled Brazil between 1964 and 1985; and the floating signifier of the *Lava Jato* corruption scandal. Taken together, these acts of articulation contested the assertions of pro-dam actors that the projects studied were in the 'national interest' and relocated their planning and construction within a political context of corruption, authoritarianism and politics. The pro-dam storyline of sustainability became characterised as a "tool" to justify and gain support for projects that were guided by political motivations (I6; I14; I16; I20; I21; Q13).

The post-cancellation storyline continues these acts of articulation by locating these political variables as central factors in understanding the cancellation of the Tapajós project (I6; I14; I16; I20; I21; Q13). In doing so, resistance actors highlight a shifting political context – involving the exposure of the corruption scandal by the *Lava Jato* investigation, the 2016 impeachment of President Dilma Rousseff and the presence of a new government, led by President Michel Temer (2016-present) – as explanatory factors for IBAMA's decision. This shifting political context provides a privileged sign – or nodal point – in the signifying chain, with resistance actors often referring to this process of change when discussing the São Luiz do Tapajós project. In discussing this decision, numerous resistance actors argue that it was made in a 'golden moment', in which such a decision was possible (I6; I8; I11; I13; I14). This is for a number of reasons that I will detail below.

A number of resistance actors continued to discuss the role of the floating signifier of corruption in discussing the cancellation of the São Luiz do Tapajós project with interviewees and resistance materials making reference to this element when discussing contributory factors to the cancellation of the Tapajós scheme (I11; I16; I17; Q14; S25; S257; S271). For example, Brent Millikan of, the international anti-dam EO, International Rivers, argued that the project's cancellation represented: "an important victory... stopping this unnecessary project, which is riddled with corruption" (S271). In making this statement, Millikan continues to articulate the equivalence between the São Luiz do Tapajós dam and the floating signifier of corruption, whilst

highlighting his belief that the project itself was the result of a corrupt relationship between political and commercial actors.

However, the equivalence articulated between the projects studied and the *Lava Jato* corruption investigated within the resistance storyline of repoliticisation is not present in the post-archival storyline. Instead, the positioning of this element in the signifying chain is changed. Within the initial storyline of repoliticisation, the equivalence between the projects studied and the *Lava Jato* investigation was made with particular reference to the Belo Monte project. At the time of writing, no evidence links the *Lava Jato* corruption scandal to the planning and construction of the São Luiz do Tapajós dam. Rather than asserting the direct role of the project within politico-commercial corruption (as storylines concerning Belo Monte have done), resistance actors explaining the cancellation of the Tapajós project argue that the uncovering of corruption provides only an indirect cause for the 2016 decision. The equivalence between the São Luiz do Tapajós dam and corruption is reconfigured by resistance actors, who argue that the *Lava Jato* investigation and its prominence in national new cycles provided a brake on future hydropower projects, such as the São Luiz do Tapajós scheme (I11; I16; I17: I21). The logic underpinning this argument is that the exposure of corruption related to the Belo Monte project resulting in the loss of the political capital held by the pro-dam coalition (I11; I16; I17; Q14; S25; S257). For example, a representative of a domestic EO argued that the *Lava Jato* scandal had left the pro-dam coalition on the back foot:

They [the pro-dam coalition] are unstructured, without money [and] in prison... There's no one. There's no money. Everything is broken. I think that's what explains the cancellation of the São Luiz do Tapajós [dam] is much more a political and economic situation than the environmental evaluation [IBAMA's decision] suggests (I11).

In making this statement, the interviewee asserts that the exposure of the corrupt relationship between politicians and commercial actors by the *Lava Jato* investigation has restricted the political commitment to hydroelectric projects - with the break-up of what Zachary Hurwitz described as a 'hydro-mafia' restricting the political capital invested in such projects (S148). For the interviewee, the corruption scandal had exposed the impunity of the companies implicated, restricting their ability to be involved in large infrastructure projects in the future (I11; Q14).

This represents an act of rearticulation, with the resistance storyline reconfigured to present the corruption scandal as a factor in the archival of the São Luiz do Tapajós project. Whilst the previously-discussed storyline of repoliticisation articulated the equivalence between Belo Monte and the corruption exposed by the *Lava Jato* investigation, the post-Tapajós storyline argues that the detection of this corruption instead stripped the pro-dam coalition of the political capital to

ensure a manoeuvrability and influence to push the São Luiz do Tapajós forward. If Belo Monte represented an opportunity for corruption, the cancellation of São Luiz do Tapajós signalled its demise (I11; I16; I17).

In explaining the ‘golden moment’ that allowed the archival of the São Luiz do Tapajó dam, resistance actors further advance the act of articulation that links the projects studied to the political career of President Dilma Rousseff (2011-2016) in the planning and development of the dams studied. Within the post-Tapajós storyline, interviewees extended this equivalence, arguing that Dilma’s removal from office allowed for the cancellation of the São Luiz do Tapajós project (I6; I12; I20). With the cancellation of São Luiz do Tapajós occurring in the same period as her removal from office in August 2016, this equivalence between the two events was articulated by a number of interviewees (I4; I6; I11; I12; I18; I20; I21). For example, an interviewee at the Brazilian wing of an international environmental organisation explained that the political decline of Dilma had decreased her ability to ensure the project went ahead, arguing that “if Dilma had the same power that she [had previously] ... she would have just shoved it down our throats” (I6). This equivalence between the 2016 decision and the impeachment of Dilma was even replicated in interviews with representatives of IBAMA (I12), with the discussion of the reasons behind the cancellation was interrupted as follows:

R1: I think that a lot of elements contribute to this. We have energy, [José] Sarney Filho,¹¹⁴ Lava Jato...

R2: The crisis.

R1: The crisis. The fiscal crisis. We don't have money and we must...

R2: [whispers] Dilma

R1: We must use this... [laughs] Dilma.

R2: [laughs]...

R1: Dilma loved hydroelectric... She loves hydroelectric dams.

The logic underpinning this statement is the continued articulation of equivalence between the projects studied and the political agency of Dilma. In making this argument, the interviewees are highlighting the perceived stubbornness of Dilma who is presented in the storyline of repoliticisation as intent on building the projects studied, regardless of their impacts. This equivalence is highlighted further, with resistance actors describing how, with the impeachment of Dilma, it became easier by IBAMA to deny the preliminary license to the São Luiz do Tapajós

¹¹⁴ Several interviewees explained that the political capital held by Minister for the Environment, José Sarney Filho (2016 - present) is a reason for the decision (I6; I12). Sarney Filho, the son of the former President of Brazil, José Sarney (1985-1990), is from a political dynasty in Brazil, providing political capital that, in this case, gave strength to IBAMA to archive the São Luiz do Tapajós project (I12).

scheme (I6; I7; I12; I20; S240). A resistance actor explained that the decision required a degree of political capital, with an interviewee from the Brazilian wing of an international EO arguing that this was the first time that the Brazilian electrical sector had been rebuffed by the environmental regulator (I7). It was the shifting political context at the time of the decision that allowed for what a representative of IBAMA described as “a good moment” (I12), in which the cancellation of São Luiz do Tapajós represented a viable policy choice for the regulator. Resistance actors further articulate the equivalence between the projects studied and the political career of Dilma Rousseff, arguing that it was her removal from the Presidency that led to the opportunity for the removal of the São Luiz do Tapajós from energy plans (I4; I6; I8; I11; I18; I21).

With Dilma Rousseff succeeded as President by Michel Temer (*Partido do Movimento Democrático Brasileiro*, PMDB), resistance actors further develop the storyline of repoliticisation to position the decision to archive the São Luiz do Tapajós scheme within a new political context and driven by a new government’s own economic motivations (I16; I17; I21; S25; S240). In doing so, resistance actors highlighted how an economic recession experienced in Brazil between 2015 and 2017 explains the archival of the São Luiz do Tapajós project. In forwarding this storyline, resistance actors articulate an equivalence between the 2016 decision and the decline of the Brazilian economy to argue that this decline resulted in a decrease of energy demand and, in turn, the importance of the São Luiz do Tapajós project to the pro-dam coalition (I6; I16; I18). This period witnessed a dramatic contraction in the Brazil economy, with a 3.8 percent drop in gross domestic product (GDP) in 2015. This prompted a recalibration of government spending, particularly the amounts spent on energy infrastructure in Brazil (Cascione, 2017). As an interviewee at the MPF explained, “A [financial] crisis is always a good moment to rethink, to reflect on our past and to find better ways” (I14). This articulated equivalence can also be seen in how numerous interviewees described that the focus of the government has become on managing government spending and implementing austerity measures across Brazil (I1; I3; I4; I6; I8; I14). Resistance actors argued that, with large dams representing substantial investments, the Temer administration would be less likely to pursue such projects in a precarious economic climate and will concentrate on alternatives (I6; I12; I16; I17). It is within this new political context that a government led by President Michel Temer “doesn’t see São Luiz do Tapajós as a priority” (I16). This is supported by events since the 2016 decision, with the current government, led by President Michel Temer (2016-) distancing themselves from not just the São Luiz do Tapajós project but wider discussions of hydroelectric dams in the Brazilian Amazon in a January 2018 announcement (S45).

The reconfigured storyline represents an extension of the repoliticisation of the projects studied to incorporate newer elements present in Brazilian politics, further locating these projects with

political motivations and questions of economic growth and development. Although the entrance of the element discussing the 2015-2017 economic recession into the signifying chain of the storyline of repoliticisation does signal a reconfiguration of the storyline, I do not understand it as representing the forwarding of a new signifying chain. The rearticulation of the equivalence between the cancellation of the São Luiz do Tapajós project and political motivations remains consistent with storyline described in Chapter 5, with the underlying assertion of the importance of political agency in the planning and construction of dams remaining. Although the actors and motivations have changed, this focus on political agency remains.

The reconfigured storyline of repoliticisation challenges the assertions that the cancellation of the São Luiz do Tapajós project was the result of uncertainty regarding social and environmental impacts. Instead, it argues that a shifting political context resulted in a loss of political capital committed to the scheme and the decreased power of the pro-dam coalition (I4; I11; I18; I21). In doing so, resistance actors engage in new acts of articulation that constructs an equivalence between the cancellation of the São Luiz do Tapajós project and a new political context, asserting the importance of new political actors. Whilst this represents a change in the pro-dam storyline discussed in Chapter 5, it also constitutes a continuity by reflecting the underlying assertion of the importance of political agency in the decisions that surround the planning, construction and cancellation of the São Luiz do Tapajós project.

The storyline of impacts: A vision of alternatives

A storyline of impacts provided a key route of critique of the sustainability credentials of both the Belo Monte and São Luiz do Tapajós, articulating new elements related to socio-economic impacts, deforestation and greenhouse gas emissions to challenge the official environmental impact assessments (EIAs) provided by pro-dam actors. Taken together, these acts of articulation presented an alternative vision of the sustainability of the projects that broadened the horizons of both official assessments and the pro-dam storyline of sustainability.

With the project removed from national energy plans, resistance actors look to the future to present the cancellation of São Luiz do Tapajós as an opportunity to transform the energy sector. The resistance storyline of impacts is transformed from one that challenges the pro-dam coalition to one that illuminates alternatives moving forward. Resistance actors forwarded a storyline that presented the 2016 decision - and the changing political context - as a turning-point in the resistance against hydropower in Brazil (I5; I6; I7; I12; I13; I18). For example, an interviewee at the Brazilian arm of an international EO that had been critical of the environmental impacts of hydropower, explained, the cancellation of the project was “a good sign, a good indicator, that things should be done different[ly]” (I13). This interpretation was replicated in materials disseminated by Greenpeace Brasil, which presented the cancellation of the project as allowing

for the transition from the construction of mega-dams in the Brazilian Amazon in the future (I5; I6; I7; I18; S139; S143). As a prominent national journalist explained, “Maybe, this is what is starting to happen now. I hope that the Brazilian government will also go in that direction [of alternatives] ... maybe [the cancellation of] Tapajós is the beginning of it” (I5). In making this statement, the interviewee articulated the equivalence between the cancellation of the São Luiz do Tapajós project and an opportunity to change the Brazilian national energy matrix, directing it away from the development of hydroelectric dams in the Legal Amazon Region and towards alternatives that are deemed by these actors as less socially and environmentally damaging. The storyline of impacts moves beyond the directed critique of the storyline of sustainability adopted by the pro-dam coalition, with resistance actors articulating their own vision of sustainability (defined as related to limited social and environmental impacts) to forward alternative energy sources, such as solar and wind (I6; I13; S139).

Resistance actors rearticulate the equivalence between the São Luiz do Tapajós and greenhouse gas emissions to present a number of alternatives to hydropower in the Brazilian Amazon. Within the initial resistance storyline of impacts, GHG emissions represented a floating signifier that was rearticulated to critique the pro-dam storyline of sustainability. However, the archival of the São Luiz do Tapajós dam is discussed as an opportunity for the transformation of the Brazilian energy sector and a transition away from GHG-emitting energy sources, including hydropower. As one interviewee argued, IBAMA’s 2016 decision allowed for the Brazilian state “to direct our investment, to divest from fossil power plants, from nuclear power plants, from large dams in the Amazon; and invest in... true, clean renewables” (I6). In making this statement, the interviewee rearticulates the floating signifier of GHG emissions - changing it from an element of critique to a more-positive articulation, presenting the possibilities of alternative energy sources. The potential of solar and wind power in future Brazilian energy matrixes was extensively discussed, with resistance actors arguing that the energy sources provide viable alternatives to hydropower (I6; I7; I10; I12; I13; I18; S139). For example, the *Movimento dos Atingidos por Barragens* (MAB, Movement of those Affected by Dams) responded to the archival of the project by arguing for the Brazilian energy sector to have a greater focus on solar, wind and biomass (S240). This view is replicated in Greenpeace Brasil’s 2016 report *Energy [R]Evolution*, which provided a model for Brazil to use 100 percent renewable energy by 2050 (S143).¹¹⁵ In drawing attention to these alternatives, resistance actors look to the future and assert that the cancellation of the São Luiz do Tapajós project represents an opportunity for the resistance coalition to act to discredit future hydropower schemes and assert the importance of alternatives (I6; I13; S184). The

¹¹⁵ However, a representative of Greenpeace discussed how the cancellation of the São Luiz do Tapajós project prompted the fossil fuel (coal, oil and natural gas) and nuclear industries to increase lobbying efforts in the Brazilian Congress (I6).

forwarding of this reconfigured storyline of impacts functions to discredit pro-dam actors claims regarding the importance of hydropower in securing future energy security in Brazil by highlighting alternatives and their potential (I10).

However, the signs related to local impacts (as discussed in Chapter 6) are absent in this reconfigured storyline focused on future threats. In the previously-discussed storyline of impacts, the local grievances and demands surrounding the Belo Monte and São Luiz do Tapajós project were ‘scaled up’ and articulated as equivalent to wider issues and demands in the storyline of impacts. In the post-cancellation context, they have been subsumed into a wider storyline that focuses on the national level (I4; I6; I18; I21; S46; S50). I understand this as a response to the dislocation of previous acts of articulation caused by the removal of the São Luiz do Tapajós project from energy plans, with resistance actors transferring their focus from the impacts of this projects to asserting the *sustainability* of alternatives. Whilst the previous resistance storyline presented the social and environmental impacts of Belo Monte and São Luiz do Tapajós projects as reasons for opposition, the post-Tapajós storyline presents the project’s removed from energy plans as an opportunity to forward an alternative vision for a Brazilian energy matrix in the future. The resistance storyline of sustainability is itself reconfigured to look to the future and assert the alternatives to hydropower in future energy matrixes (I6; I10; I13; S143). This demonstrates a change from previous storylines, with elements of social and environmental impacts, initially advanced to dispute the storyline of sustainability adopted by the pro-dam coalition, reconfigured to point to alternatives, deemed by resistance actors to be more ‘sustainable’ in terms of impacts.

A storyline of antagonism: Continued threats

The storyline of antagonism, discussed in Chapter 7, was advanced by resistance actors to highlight how the construction of the Belo Monte and São Luiz do Tapajós projects would impact upon indigenous communities in the respective regions. Resistance actors articulated the equivalence between the projects studied and a number of elements - such as wider threats to indigenous communities, the denial of indigenous cultural identity and the violation of rights to free, prior and informed consent - to foreground the resistance to these projects in an antagonism between ‘us’ and ‘them’. Taken together, these acts of articulation scale up the local grievances of indigenous communities into a wider storyline that critiques the projects as a site of national threats to indigenous communities in Brazil.

The storyline of antagonism is prominent in interviews and opposition materials that discuss the cancellation of the São Luiz do Tapajós project. Resistance actors continued to articulate the equivalence between the dam and the opposition of indigenous communities, presenting the resistance of the Munduruku community as a central factor in the cancellation of the project (I6; I15; I16; I17). One interviewee described the Munduruku opposition as “irreducible”, going on

to argue that the resistance “got really [widely] covered by the press and... television and... newspapers. In Brazil and outside of Brazil.” (I17). Key for many of those interviewed was the Munduruku process of self-demarcation, with this action demonstrating the legal and historical nature of the Sawre Muybu territory and the impacts of the project upon it (I6; I15; I16). The community is presented in opposition materials as well-organised, visionary and effective in their resistance and as, themselves, forcing the project’s cancellation (S19; S139; S216). As a journalist explained to me, “It was really ahead of its time... Tapajós was a national issue before it was built” (I16). In making this statement, the resistance actor demonstrates the continued centring of indigenous communities in the resistance to the project by resistance actors, with the Mundurku community continuing to be cast as key actors in resisting the São Luiz do Tapajós project – and defeating it (I4; I6; I8; I11; I16; I17; I21)

However, in describing the cancellation of the São Luiz do Tapajós project, resistance actors reconfigure the storyline of antagonism by arguing that, despite the project’s cancellation, the antagonism between indigenous communities and encroachment on territory continues (I4; I6; I8; I11; I15 I21; Q8; Q10; S193; S260). For example, an event to celebrate the project’s archival in Itaituba was also used as a site for local resistance actors to reflect on anti-dam struggles elsewhere in the Brazilian Amazon, including those against Belo Monte (S216). Similarly, a representative of an international NGO reminded me that São Luiz do Tapajós was “only of many dams planned on the Tapajós”, alluding to the need for the resistance coalition to refocus its opposition to the construction of the Teles Pires and São Manoel projects also being built in the river basin (Q10). The international EO, Amazon Watch’s report on the cancellation included a translated quote from Cacique Arnaldo Kabá Munduruku, who said “We, Munduruku people, are very happy with the news, this is very important for us. Now, we will continue to fight against other dams on our river” (S257). In distributing this statement, Amazon Watch highlights how the cancellation of the São Luiz do Tapajós projects does not equal the end of the resistance coalition - or the antagonism between indigenous groups and pro-dam actors, with the struggle against dams in the Brazilian Amazon far from over.

Whilst resistance actors asserted the persistence of antagonism between indigenous communities and external actors encroaching on territory, the storyline of antagonism was refocused to fit with the Brazilian political terrain that has followed Dilma’s impeachment. In making these statements, resistance actors reground the storyline of antagonism within a political contention that has emerged in Brazilian politics in the wake of the 2013 June Days, foregrounding their understanding of the archival of the São Luiz do Tapajós project within an emergent antagonism. Although numerous interviewees explained that the impeachment of Dilma had removed the political impetus behind these projects (I6; I7; I12; I20), the political changes that surround Dilma’s removal from power are criticised by a number of resistance actors. For example,

resistance materials and actors have demonstrated opposition against the impeachment of Dilma, describing the process as a ‘coup’ (I2; I4; I21; S238). For example, a representative of an international environmental organisation described President Michel Temer as “an illegitimate president, who came to power through, essentially, a coup” (I21). In making this statement, the resistance actor draws from an emergent polarisation in Brazilian politics and society since the 2013 June Days.¹¹⁶ Contemporary politics in Brazil at the time of the cancellation of the São Luiz do Tapajós project represented the collision between competing political groups, one supportive of the PT and one calling for Dilma Rousseff’s impeachment. As a result, the impeachment of Dilma Rousseff was subject to numerous protests, both for and against impeachment.¹¹⁷ This condemnation of Dilma’s removal from power represents a reconfiguration of the resistance storyline of repoliticisation to recentre opposition critique on the government of President Michel Temer, whose Presidency is described as being an illegitimate government (I4; I21; S238). For example, the MAB described the impeachment of Dilma as representative of a transnational capitalist class taking power over the state via illegal means (I4; I6; I8; I11; I18; I20; I21; S238). This represents an emergent change from the storyline explored in Chapter 6, with resistance actors articulating the links between Belo Monte and São Luiz do Tapajós projects and the contemporary polarisation of Brazilian politics, highlighting the points of an emergent frontier between ‘us’ and ‘them’ that has become evident in Brazil in recent years.

In the wake of the cancellation of the São Luiz do Tapajós projects, resistance actors reconfigured the storyline of antagonism to highlight continued threats to indigenous communities in Brazil. This rearticulation of the equivalence between the dams studied and political interests departs from the previous storyline of antagonism by absorbing a new sign within the signifying chain. Within interviews and resistance materials, the focus of the discussions of this antagonism was on the increasing power of the *bancada ruralista* faction in contemporary Brazilian politics. The *bancada ruralista*, a political alliance formed in 1985, is centred on opposition to measures directed at environmental protection or conservation and lobbies for the expansion of the Brazilian

¹¹⁶ It is possible to identify two antagonistic poles in Brazilian politics (Bringel, 2016). On one side is a progressive camp that calls for democratic reform, social justice and equality. On the other can be found a group centred on more-traditional values, such as security, economic stability and family values. The profile of the two groups discussed above is similar, with most of those protesting characterised as college graduates in their thirties and forties (Bringel, 2016). The competition between the two groups can be understood as a collision of political identities, rather than backgrounds. I understand this process as representing the presence of Laclau and Mouffe’s (1985) concept of antagonism, defined as representing the collision of discourses and the drawing of a frontier between ‘us’ and ‘them’.

¹¹⁷ Within this context, Brazilian politics became centred upon a number of signs. For example, within this context of political contestation, three colours took on new meaning - with red (the colour of the PT) and yellow and green (representing the colours of the Brazilian flag) coming to dominate protests both for and against the impeachment of Dilma. These colours gained such significance that one contact in Brazil warned me against wearing red or green clothing in public (Observation, 19/10/2016).

agricultural sector. The *ruralistas* are understood as embodying the interests of the agricultural lobby, taking a firm stance against indigenous land demarcation and lobbying for the expansion of the agricultural frontier. Although this group supported the administration of Dilma Rousseff, numerous interviewees argued that the *ruralistas* had increased their political influence within the new government of Michel Temer (I4; I12; I16; I18; I21).¹¹⁸ For example, a representative of, international EO, Amazon Watch argued that “they are pretty much calling the shots right now in Brazil” (I21). In making this statement, the resistance actor argues that the *ruralistas* have the power and autonomy to both influence government policy but also to block other decisions - resulting in a series of emergent threats against the protection of the environment and indigenous communities (I4; I12; I18; I21).

With the actions of the ruralist bloc widely-discussed by resistance actors (I4; I12; I16; I18; I20; I21), the element related to the threats posed by the *ruralistas* and, with this faction, the Temer government is articulated into a reconfigured signifying chain as a nodal point, around which the storyline of antagonism is reordered and the respective signs repositioned. In addressing the influence of the *ruralistas*, this storyline articulates an equivalence between the *ruralistas* and emergent threats to the environment (I3; I4; I18; I21; Q4; Q12). Resistance actors described a number of threats to environmental protection in Brazil, including a weakening of the environmental licensing process (allowing for the planning and construction of dams and other damaging schemes regardless of potential impacts), the opening-up of protected areas for extractive industries and accelerated processes of deforestation as agricultural land expands into the Amazon region (I3; I4; I6; I18; I21; Q4; Q10; Q12; S46; S103; S242; S257; S274). As one interviewee at an international EO argued, “one of the major targets of the Ruralistas, is to open up these territories to have access to them to build large agro-industrial projects but also large mines, roads, waterways, dams” (I21). In articulating this equivalence between the power of the *ruralistas* and emergent threats, resistance actors reconfigure the storyline of antagonism to move beyond directly-challenging a pro-dam storyline of sustainability and towards the assertion of how the primacy of this political faction threatens contemporary environmental protection in Brazil.

This focus on emergent threats to the environment is widened further to include discussions of how the *ruralistas* threaten the lands and livelihoods of indigenous communities in Brazil. (I4; I15; I18; I21; Q10). Within this articulation, the projects studied are portrayed as one front in the contemporary resistance to anti-indigenous policies - with the antagonism between indigeneity

¹¹⁸ Upon his taking of office, the lobby submitted a list of demands to President Temer, arguing for the need for land reform and increased subsidies for agribusiness. It is reported that Temer committed to exploring these demands over lunch with members of the ruralist bloc (Benites, 2016). A prominent member of the bloc, Senator Blairo Maggi has since been appointed Minister for Agriculture in 2016.

and developmentalism far from over (S216; S239; S244). Resistance actors argue that the Temer government, supported by the *ruralistas*, is likely to reverse current protections for traditional communities, as part of a campaign to ‘open up’ the Amazon region for further developmentalist activities (I4; I6; Q6; I18; I21). For example, in August 2017, *Conselho Indigenista Missionario* (CIMI) labelled the policies of the Temer government as part of an “institutional campaign” by the Brazilian government against indigenous communities (S82).¹¹⁹ Whilst the previously-discussed storyline of antagonism located this competition between indigeneity and developmentalism with the policies of the governments of Lula and Dilma, the reconfigured storyline discussed relocates this antagonism to discussions of the politics of the *ruralistas*. These threats were presented in resistance materials as the result of the power of the *ruralistas* to control the policies of the Temer government (S220; S260; S295).¹²⁰ This assertion is demonstrated in Figure 8 below, by the political cartoonist Carlos Latuff and published in a 2016 article by *Conselho Indigenista Missionário* (S185). Within this image, a *ruralista*, with dollar signs for cufflinks, is controlling President Michel Temer as he engages in a policy of erasure of the indigenous communities of Brazil.

Figure 8: 2016 cartoon by Brazilian cartoonist Latuff (S185)



¹¹⁹ 2017 has witnessed numerous protests against the policies of Michel Temer’s government. A centrepiece of this resistance was the 14th *Acampamento Terra Livre* (Free Earth Camp, ATL), which gathered 1,600 indigenous people in Brasilia for a four-day event of activities, discussion and protests in April 2017. It was reported that this was the largest ATL ever held (S168; S222; S223). At an indigenous demonstration held as part of this event, the Federal District Military Police fired pepper gas canisters and rubber bullets at 2,000 indigenous people marching towards the *Congresso Nacional* (National Congress) (S221).

¹²⁰ This linking of the protection of indigenous communities to the role of *ruralistas* has centred on a number of policies (I18; I21; S76). This includes the *Proposta de Emenda à Constituição 215/2000* (PEC 215), a bill that proposes to transfer legal responsibility for indigenous land demarcation from the executive to the legislature, ultimately allowing for the blocking of future territory protection.

Within this reconfigured storyline of antagonism, the Belo Monte and São Luiz do Tapajós projects are presented as two sites within the wider antagonism between indigenous communities and developmentalist actors that persists in the post-Tapajós context. The articulation of equivalence between the political power of the ruralist lobby and continued threats against indigenous communities recentres the resistance storylines of antagonism and repoliticisation around the threats to indigenous communities in Brazil and positions the resistance coalition against the storylines of the ruralist faction that describe indigenous communities as unproductive and regressive.¹²¹ CIMI, a Brazilian organisation lobbying for the protection of indigenous communities, has documented this increased hostility, describing land-invasions and aggression towards indigenous groups in Brazil, with 138 murders of members of indigenous communities in 2014 (S80). In appealing to these contemporary threats, the resistance coalition articulates the equivalence between the projects studied and a wider context of violence against indigenous communities and the denial of their identity, territorial rights and cultural difference. As the Program Director for Amazon Watch, Christian Poirier, has argued “[the] triumph must be weighed against the grim reality facing Brazil today, as the Amazon and its traditional communities confront a rising tide of existential threats” (S257). In making this statement, Poirier argues that, despite the cancellation of this project, similar threats persist and the need for resistance continues.

In summary, the storyline of antagonism examined in Chapter 7 is reconfigured by resistance actors to include emergent threats and new actors. By articulating the links between the Belo Monte and São Luiz do Tapajós projects and the contemporary polarisation of Brazilian politics, the resistance coalition is able to reground the projects in a wider occurrence of antagonism, revealing the continued presence of antagonism between ‘us’ (indigenous communities, resistance actors) and ‘them’ (developmentalist interests) that persists beyond the cancellation of the São Luiz do Tapajós project. This post-2016 storyline regrounds the storyline of antagonism within the continued threats to indigenous communities across Brazil.

A storyline of vigilance

In reconfiguring the above storylines of repoliticisation, impacts and antagonism, resistance actors to discuss the archival of the São Luiz do Tapajós project, resistance actors forward a new

¹²¹ Resistance materials also draw attention to members of the ruralist faction making speeches that deny the rights and identity of indigenous populations (S287; S288). For example, in 2015 the international NGO committed to the protection of indigenous populations, awarded its ‘Racist of the Year’ award to, the Federal Deputy for Maranhão, Fernando Furtado for a speech that called for indigenous populations to be starved to death and reportedly labelled them a ‘bunch of little gays’ (S288).

storyline that is forwarded by presenting the view that the archival of the São Luiz do Tapajós project is not permanent (I6; I8; I11; I16; I17; I18; I21; Q6; Q7; Q8; Q9; Q14). I understand this emergent signifying chain as a *storyline of vigilance*. This emergent storyline argues that the ‘archival’ of the project is by no means assured and, with the changing political context described above, resistance actors must remain opposed to the project. As a representative of an international EO explained “I don't believe that this is a permanent archival in any way, I believe it's temporary... We need to recognise this as a very important victory, but it can be reversed from one year to the next” (I21). The logic underpinning this statement of vigilance is linked to the reconfigured storyline of repoliticisation described above. With the 2016 decision presented by opposition actors as motivated by a shifting policy context, interviewees argued that a further change in this context would allow for the project to be built in the future (I14; I18; I21; Q13).

The logic underpinning this argument is that the reasons behind IBAMA’s 2016 decision are primarily rooted in the shifting political context in Brazil (linked to elements of corruption, a financial crisis and the impeachment of Dilma Rousseff). However, opposition materials argue that the contemporary political context (both the result of an incorporating the elements above) does not represent the limiting of the rationale behind the construction of the Belo Monte and São Luiz do Tapajó project, defined as political corruption and a desire to use dams as a spearhead to ‘open up’ the respective regions (I11; I8; I21). Similarly, with few resistance actors arguing that it was the social and environmental impacts that led to the project’s cancellation, respondents argue that, when it returns, the project will bring the same processes of displacement, deforestation and emissions that were asserted in the resistance storyline of impacts discussed in Chapter 6 (I6; I21). In forwarding the storyline of vigilance, resistance actors argue that the project will return, regardless of its social and economic impacts (I4; I6; I17). Whilst members of the resistance coalition may celebrate the archival of the São Luiz do Tapajós as “a conservation and human rights victory” (Q9; S36), others call for continued vigilance against the project’s return in the future (I6; I8; I11; I16; I17; I18; I21; Q6; Q7; Q8; Q14).

Resistance actors argue that the rationale of IBAMA’s 2016 decision to archive the São Luiz do Tapajós dam was focused on the uncertainties of the project’s social and environmental consequences, rather than the magnitude of the impacts themselves (I6; I8; I11; I18; I21). As an interviewee at a domestic EO argued: “it was a technical decision that said [that] there weren’t enough studies. So that offers no assurance of any kind. It can come back at any moment” (I21). This statement is illustrative of the widely-held belief that the decision was of a political nature, rather than directly related to the disputed sustainability of the project, as asserted in official accounts of the decision (I6; I14; I16; I20; I21; Q13). This logic can also be seen in a statement by the MAB which argued that it is likely that, as economic growth restores, hydroelectric projects will likely return (S244). In presenting this storyline, resistance actors continue the process of

repoliticisation – arguing that, if the project can be cancelled due to political motivations, a change in this context will likely allow the project to return (I18).

In presenting the storyline of vigilance, resistance actors articulate the equivalence between the cancellation of the São Luiz do Tapajós project and an additional sign: the history of the Belo Monte dam, due to be completed in 2019. After the 1989 Altamira Gathering, the Kararaô project was removed from government plans. However, the project (now renamed Belo Monte) returned, albeit with a changed design and location. With the struggle over the Belo Monte project extending over a thirty-year period, interviewees voiced the concern that the São Luiz do Tapajós project would return in a similar fashion (I3; I6; I7; I21; Q5; Q6; Q9; Q12; Q13). A representative of the Brazilian arm of an international EO argued, “So, this dam can never happen the way it is but, if they change the project, it can. That's what happened with Belo Monte... So, this is still a threat” (I6). In making this statement, the resistance actor highlights the opinion that project is likely to return in the future, albeit with a different name or design - just as Belo Monte had done (I6; I7; I21). Another interviewee argued, “I think that it will come back. [I am] not sure if it will come back as São Luiz [do Tapajós] but I don't think that they will give up about hydropower in the Amazon” (I7). The logic underpinning these statements is that the decision made by IBAMA was not made to terminate the project, committing it to the history books, but to temporarily ‘archive’ the scheme. As a prominent scientist, opposed to the project, explained, “It's being put out in the press as "It's cancelled! It's never going to happen!" but that's not... that's not a valid conclusion. It is just one step” (I18). IBAMA’s 2016 decision is presented as momentary and not definitive, allowing for the government to return to the project again in the future (I3; I6; I8; I11; I16; I17; Q5; Q6; Q9; Q12; Q13). The drivers behind hydropower projects in the Brazilian are asserted to remain active, albeit dormant (I21).

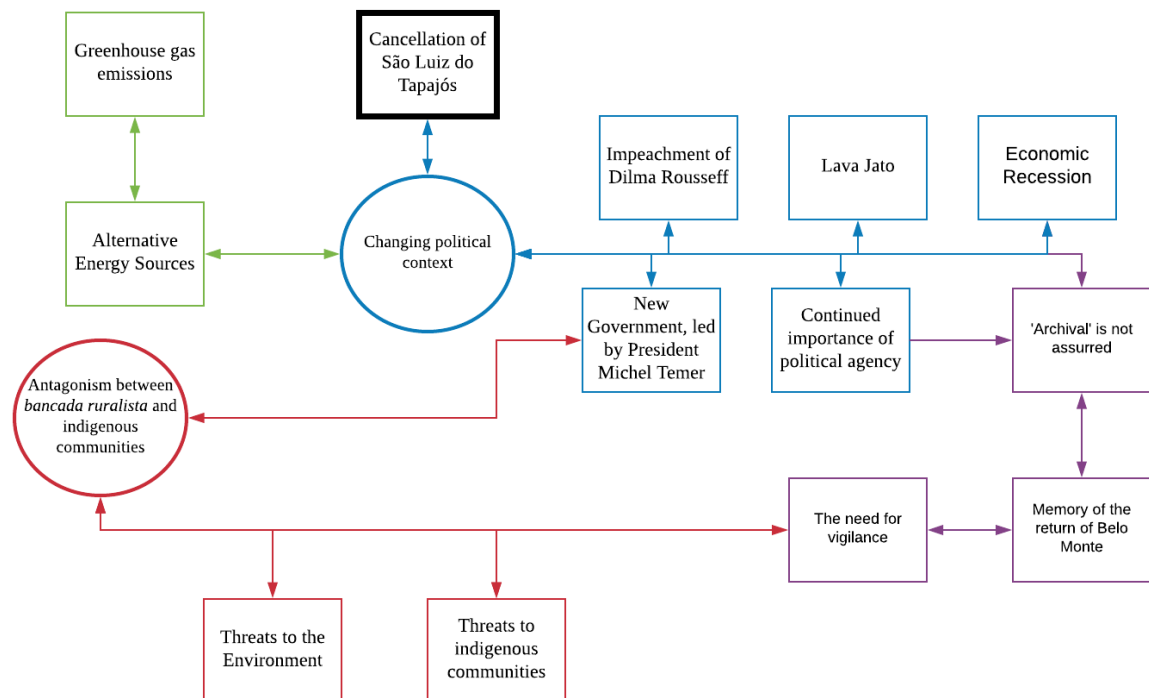
Within the emergent storyline of vigilance, the 2016 decision of IBAMA does not represent a moment of transformation of the Brazilian energy sector but instead signals a pause in resistance, with the project likely to return in the future (I4; I18). It is within this context that Christian Poirier of Amazon Watch called on the resistance coalition to “maintain their vigilance and activism” (S349). This process of reconfiguration further repoliticises the storylines discussed in previous chapters, foregrounding them in a changing political context and arguing that, although the project may be archived, the struggle against it - and other environmentally damaging schemes - are from over.

Conclusion

This chapter has focused on storylines advanced by resistance actors to make sense of the 2016 archival of the São Luiz do Tapajós project. Whilst the 2016 decision of IBAMA to ‘archive’ the project represents a process of dislocation of pro-dam storylines, the storylines of resistance actors

have also been reconfigured in the wake of the project’s cancellation. The acts of articulation discussed in this chapter attempt to make sense of IBAMA’s decision by foregrounding it in the changing political context, articulating new elements into the signifying chain to explain the significance of the decision, as well as the reasons behind it. I have outlined four primary ways in which resistance storylines have been subject to both continuity and change in the wake of the decision. These are: 1) the reconfiguration of storylines of social and environmental impacts to articulate an equivalence between the archival of the São Luiz do Tapajós project and a new opportunity for a change of Brazil’s future energy matrix; 2) the continued articulation of equivalence between the Belo Monte and São Luiz do Tapajós projects and political agency; 3) the articulation of the equivalence between the political power of the *ruralista* faction in the government of President Michel Temer and emergent threats against environmental protection and the indigenous communities of Brazil; and 4) the emergence of a new resistance storyline of vigilance that asserts that the archival of the São Luiz do Tapajós only represents a pause in resistance against the project, that is likely to return in the future. The positioning of - and relations between - these elements is illustrated in Figure 9 below.

Figure 9: A storyline of vigilance



Taken together, these acts of articulation represent the reconfiguration of storylines discussed in previous chapters, with these storylines absorbing additional elements to make sense of both the 2016 decision and the post-Tapajós political context. The storyline of impacts is reconfigured by

resistance actors focusing on the future, asserting the cancellation of the São Luiz do Tapajós project as an opportunity to transform the Brazilian energy sector. Although the storyline of repoliticisation continues to be underpinned by the asserted centrality of political agency, the actors within it have changed - with the impeachment of Dilma Rousseff, the emergence of Michel Temer and the political importance of the *bancada ruralista* deemed to have transformed the political context. This changing political context is articulated in a reconfigured storyline of antagonism to highlight how the São Luiz do Tapajós project is a site of a wider contest between ruralist, developmentalist interests and both indigenous communities and environmental protection. Lastly, the reconfiguration of these storylines has given rise to an emergent storyline to make sense of the cancellation of the São Luiz do Tapajós dam. The storyline of vigilance draws on the reconfigured resistance storylines to assert that despite the project's removal from energy plans, the resistance against the project cannot be seen as over.

Chapter 9

Conclusion: A reconfigured sustainability

In this concluding chapter, I explore the arguments and related implications developed in previous chapters. To do so, I reflect on how the resistance coalition, opposed to the Belo Monte and São Luiz do Tapajós dam projects, have advanced storylines that reconfigure the dominant storyline of sustainability forwarded by the pro-dam coalition. I will do this in a number of stages. First, I will refer back to the research problem advanced in Chapter 1 and provide an overview of how previous chapters have explored the storylines forwarded by resistance actors in the cases studied. I then focus on how these storylines constitute a reconfiguration of the dominant storyline of sustainability surrounding the Belo Monte and São Luiz do Tapajós hydroelectric projects, asserting the significance of the processes of repoliticisation and ‘scaling up’ in the resistance storylines discussed. I conclude by looking ahead, reflecting on the broader implications of the study for scholarship exploring contemporary dam projects - and wider environmental movements - and suggest a number of avenues for future research based on the arguments developed within this thesis.

Summary of argument

The evolution of energy development policy in Brazil has taken the form of a long-term contest between a pro-dam coalition that locates hydroelectric dams on the government agenda and a resistance coalition that highlights the projects’ environmental and social impacts (Baviskar, 1995; Carvalho, 2006; Hochstetler, 2011; Lee, 2013). In this thesis, I follow scholarship that has asserted the importance of the discourse present within this interplay between pro-dam and resistance coalitions (Molle et al., 2009; Ahlers et al., 2014; Warner et al., 2017). Following the work of Hajer (1993; 1995), I have defined the overarching body of these acts of signification as *storylines*. These storylines act to simplify a policy problem or solution - reducing its complexity and contradictions - and are forwarded by actors to impose a policy, process or project with a prescribed meaning or significance.

Drawing on Gramscian notions of ideological hegemony, I have described how, in an effort to bestow a dam project with legitimacy, pro-dam actors forward storylines that co-opt the demands and grievances of different social groups and articulate them as justifications for the project and to consolidate its position and related power asymmetries. Whilst historic dam projects have been legitimised via pro-dam storylines that link respective schemes to wider contexts of nationalism or economic development, hydroelectric projects of the 21st century have been justified as providing clean, green energy that contributes to contemporary sustainable development agendas (Ahlers, 2015; Huber & Joshi, 2015; Atkins, 2018). I have argued that this represents what

Antonio Gramsci (1971) characterised as *trasformismo*, with the pro-dam coalition absorbing emergent demands and grievances into its storylines to appeal to a ‘moral legitimacy’ that is prevalent at the time of their construction. In discussing the planning and construction of the respective Belo Monte and São Luiz do Tapajós hydroelectric dams in Brazil, pro-dam actors have forwarded a *storyline of sustainability*. In advancing this storyline, these actors have argued that the hydroelectricity generated by the projects studied represents a form of ‘clean’ energy, with hydropower presented as having low emissions of greenhouse gases (GHGs). This pro-dam storyline is underpinned by international environmental policy instruments, with large dam projects able to secure funding through the Clean Development Mechanism (CDM) under the 1997 Kyoto Protocol (Moore et al., 2010). I have argued that these storylines act to not only legitimise a dam project but also represent a process of depoliticisation, in which a project is rendered technical and apolitical, deflecting opposition criticism and excluding the demands and grievances of resistance actors, deemed as illegitimate (Ferguson, 1994; Chhotray, 2007; Li, 2007; Pepermans & Maesele, 2015). As a result, hydropower is presented as a solution to demands for sustainable, low-carbon energies and the *hydraulic mission*¹²² continues.

The storylines forwarded by pro-dam actors - such as the storyline of sustainability - are not fixed and, instead, remain open to contestation and reconfiguration. In analysing this process of contestation, I have drawn from the post-structuralist discourse theory of Ernesto Laclau, Chantal Mouffe and the wider Essex School to explore this process of reconfiguration. Laclau and Mouffe (1985) argued that no discourse or meaning is ever fully-hegemonic but instead is open to contestation and counter-hegemonic practice, with actors positioning both established and emergent signs within signifying chains to simultaneously challenge and exclude alternative and established meanings.

The adoption of this framework has enabled the exploration of two of the research questions set in the introduction of this thesis:

What storylines have opposition actors forwarded to reconfigure the dominant storyline of sustainability surrounding the Belo Monte and São Luiz do Tapajós hydroelectric projects?

How does the reconfiguration of the storyline of sustainability represent a wider process of repoliticisation of the projects studied?

I have argued that resistance actors have reconfigured - simultaneously challenging and modifying - the pro-dam storyline of sustainability by positioning the Belo Monte and São Luiz do Tapajós projects in relation to additional elements, excluded from the pro-dam storyline and

¹²² A worldview that asserts the importance of society’s harnessing of water resources for ‘progress’ (Molle et al., 2009).

sustainability found in the *field of discursivity*. It is by articulating these equivalences that resistance actors forward storylines that *repoliticise* the projects studied and *scale up* the local grievances and demands into wider storylines of opposition. Taken together, these processes act to contest the depoliticising tendencies evident in pro-dam storylines, asserting both the political context of the projects and the wider significance of the resistance against them. These storylines both reconfigure the signifying chain of the pro-dam storyline of sustainability and foreground the contest over the Belo Monte and São Luiz do Tapajós within a wider political context of economic policy, corruption and hostility towards indigenous communities in the region.

The analysis contained in this thesis has highlighted a number of storylines, forwarded by resistance actors, that have critiqued, reconfigured and broadened the dominant storyline of sustainability forwarded by pro-dam actors. I understand these resistance storylines as articulating the equivalence between the Belo Monte and São Luiz do Tapajós projects and additional elements, grievances and demands to both repoliticise the projects and ‘scale up’ the resistance against them. I will turn to these below.

In Chapter 5, I described a *storyline of repoliticisation*. In forwarding this storyline, resistance actors articulated a signifying chain that included elements related to the criminalisation of opposition networks, the abuse of political interests and power and economic policies of ‘development at all costs’. Resistance actors also highlighted the floating signifier of the *Lava Jato* investigation (occurring at the time of writing) and wide-ranging corruption scandal that has gripped Brazilian politics since 2015 into this storyline. The presence of these elements in the storyline of repoliticisation is articulated by resistance actors to critique and challenge the pro-dam storyline that locates the Belo Monte and São Luiz do Tapajós within the ‘national interest’. These acts of articulation question the depoliticisation of the dams by pro-dam actors, regrounding the Belo Monte and São Luiz do Tapajós projects within a political atmosphere of corruption, political interests and disregard for the grievances of those opposed to the respective projects’ construction. In forwarding this storyline, resistance actors reconfigure the pro-dam storyline of sustainability by highlighting the discrepancies between the concept of sustainable development and the construction of the respective projects - with the storyline of sustainability becoming a ‘tool’ to legitimise their planning and construction.

In Chapter 6, I described a *storyline of impacts* that is forwarded by resistance actors to highlight a number of social and environmental impacts of the Belo Monte and São Luiz do Tapajós that are excluded from both the pro-dam storyline of sustainability and official environmental impact assessments (EIA). In presenting this storyline, resistance actors absorbed a number of elements into the reconfigured storyline of sustainability - including the socio-economic impacts on the city of Altamira (impacted by Belo Monte), processes of deforestation and biodiversity protection

and greenhouse gas emissions. Taken together, these acts of articulation present an alternative vision of the sustainability of the Belo Monte and São Luiz do Tapajós dams. The highlighting of these respective impacts reconfigures the pro-dam storyline of sustainability by criticising and questioning the validity of the official EIAs and asserting the presence of a number of impacts that remain unaddressed by pro-dam actors.

In Chapter 7, I described a *storyline of antagonism*. In forwarding this storyline, resistance actors locate the indigenous communities impacted by Belo Monte - and predicted to be impacted by the São Luiz do Tapajós project - at the centre of the opposition to the respective projects. Similarly to the previous resistance to the Kararaô scheme, contemporary resistance actors located both Belo Monte and São Luiz do Tapajós as a site of a wider antagonism in Brazilian politics, namely that between indigenous communities and the encroachment upon these groups livelihoods and territories. Organised around the nodal point of antagonism, two grievances were absorbed into this equivalential chain. First, resistance actors highlighted the numerous repercussions on the cultural identity of indigenous groups impacted by the project. Second, the adoption of a language of the rights of indigenous communities - particularly related to the right to free, prior and informed consent. In articulating these links, resistance actors located the impacts of the projects studied on indigenous communities as a key site in the reconfiguration of dominant storylines of sustainability by highlighting the presence of these impacted communities, asserting their treatment as 'surplus' by pro-dam actors and demonstrating their neglect within the planning and construction of the Belo Monte and São Luiz do Tapajós projects.

With the São Luiz do Tapajós project 'archived' from national energy plans in an August 2016 decision, this thesis was provided with an opportunity to explore how both pro-dam and resistance storylines respond to an experience of dislocation. The occurrence of dislocation describes a process which a storyline is confronted by an event that challenges the signifying chain contained within it (Laclau, 1990). This challenge - with the storyline unable to accurately define or make sense of the process or event - creates the possibility of the emergence of new acts of discourse. In exploring the potential emergence of these new storylines - and acts of articulation contained with them - I have explored the third research question of this thesis:

Has the cancellation of the São Luiz do Tapajós project brought a continuity or a change in the opposition efforts to reconfigure the storyline of sustainability, in relation to hydropower projects in the Brazilian Amazon?

In Chapter 8, I explored how the resistance storylines discussed in previous chapters had themselves been reconfigured by resistance actors to make sense of the project's cancellation. It traced the trajectories of resistance storylines discussed within the post-Tapajós context. In response to the 2016 decision, resistance actors continued to draw from a number of acts of articulation present in the storylines of repoliticisation, impacts and antagonism. However, the

storylines discussed in previous chapters were also subject to a process of reconfiguration. Resistance actors foregrounded their discussion of the archival of the São Luiz do Tapajós project in a context of both emergent threats and threats. Within these reconfigured storylines, the Belo Monte and São Luiz do Tapajós projects are presented as only one site in a wider antagonism and conflict, evident in the emergence of a *storyline of vigilance*. In forwarding this storyline, resistance actors asserted that the cancellation of the São Luiz do Tapajós project did not equal the end of their opposition. With the project deemed likely to return in the future, resistance actors asserted the need for both caution and resistance against both the project and the wider antagonism between developmentalist interests and indigenous communities in Brazil.

A reconfigured sustainability

By highlighting the potential for reconfiguration of pro-dam storylines, the analysis developed in this thesis broadens contemporary understandings of the politics of dams and the storylines that surround the construction of this infrastructure. Whilst previous research has explored the emergence and consolidation of the pro-dam storyline of sustainability (Bratman, 2014; 2015; Ahlers, 2015; Huber & Joshi, 2015; Atkins, 2017; 2018), this thesis has illuminated the numerous ways in which resistance actors both contest and reconfigure this dominant narrative of legitimacy. In response to the pro-dam storyline of sustainability, resistance actors opposed to the Belo Monte and São Luiz do Tapajós dams have not only contested the planning and construction of the respective projects but have also resisted their definition as a sustainable project. In exploring the acts of articulation contained within the storylines advanced by those opposing the Belo Monte and São Luiz do Tapajós projects, the analysis developed in this thesis has demonstrated how the resistance coalition is able to broaden the signifying chain present in the pro-dam storyline of sustainability. Resistance actors have engaged in acts of articulation, linking the project to elements previously-excluded from the pro-dam storyline, to highlight discrepancies between the Belo Monte and São Luiz do Tapajós projects and contemporary understandings of sustainable development. This is evident in the storyline of impacts that illuminates a number of social and environmental consequences of the dams studied that remain absent in both the pro-dam storyline and official environmental impact assessments (EIAs). In advancing these storylines, resistance actors contest the pro-dam storyline of sustainability, illustrating its limitations and exposing its weaknesses.

Furthermore, this thesis has demonstrated how the pro-dam storyline of sustainability has been reconfigured by a process of repoliticisation. This process highlights the political motivations and interests behind a dam project, regrounding the interplay between pro-dam and resistance actors within the politicised context that is denied by pro-dam actors. Whilst proponents of the Belo Monte and São Luiz do Tapajós projects have located the respective dams as above *the political* - and the antagonism of everyday politics that it represents, resistance actors have forwarded

storylines of repoliticisation and antagonism. These storylines illuminate the political interests and motivations that drove the projects forward, regardless of the demands and grievances of those opposed to it, as well as the wide-ranging impacts that the projects would have. In exploring these acts of articulation, this thesis has demonstrated how the reconfiguration of a dominant pro-dam storyline - in this case, one of sustainability - also represents a wider process of repoliticisation, with resistance actors able to foreground their struggle within a political context of antagonism, contestation and struggle.

The reconfiguration of the pro-dam storyline of sustainability highlights how dominant storylines are by no means assured and, rather than being hegemonic, remain open to contestation and reconfiguration by resistance actors. In exploring the interplay between pro- and anti-dam storylines, the analysis developed throughout this thesis highlights that it is necessary for contemporary research agendas to explore how the development of storylines surrounding dam projects in the 21st century is a two-way process. Whilst pro-dam actors adopt additional demands into legitimising storylines, resistance coalitions reconfigure dominant pro-dam narratives by extending their signifying chain and articulating the links between a dam and various impacts, neglected in the pro-dam storyline of sustainability. These *moments of contestation* provide an opportunity for future research to explore how the hegemony of the *hydraulic mission* is not set in stone and, instead, is subject to resistance and the emergence of alternative storylines.

In illuminating these processes of reconfiguration, this thesis demonstrates how dominant notions of sustainability of particular technologies and energy sources are both contestable and contested. In light of Sustainable Development Goal 7 calling for *sustainable and modern energy for all*, governments across the globe continue to turn to hydroelectric dams as a source of energy. From the Budhi Gandaki project in Nepal, which is expected to displace close to 45,000 people (Rathore, 2016) to the Condor Cliff Dam in Argentina, the *hydraulic mission* remains persistent in the 21st century. Despite the efforts of resistance actors in the cases studied, the pro-dam storyline of sustainability continues. The Clean Development Mechanism - as well as the World Bank, pension funds, the New Development Bank and Chinese capital - all fund the construction of contemporary dam projects whilst asserting the energy source's sustainability credentials (McDonald et al., 2009; Siciliano et al., 2016; Urban et al., 2017; Del Bene et al., 2018). In light of this support, proponents of large-scale hydropower continue to assert its role in contemporary sustainable development agendas (Lane, 2015; Berga, 2016).

Within the storyline of sustainability, numerous hydroelectric projects are provided with both financial support and a degree of legitimacy, with the projects cast as *green* technology within a climate-changing world. However, the analysis contained within previous chapters has demonstrated how anti-dam actors have forwarded a broader notion of what sustainability, in terms of hydropower, represents. With the language of sustainable development remaining

ambiguous (Beckerman, 1994; Davidson, 2010; Scoones, 2010; Brown, 2015; Chaturvedi & Doyle, 2015), resistance actors inscribe it with additional meaning. In the cases studied, resistance storylines incorporated elements related to corruption, human rights and cultural heritage, articulating these elements are equivalent to both the Belo Monte and São Luiz do Tapajós dams and global storylines of environmental policy and politics. In articulating this equivalence, the resistance coalition incorporates a new framing of sustainability, to include discussions of social and economic grievances at the local level, political interests and corruption on the national stage and global environmental problems to contest and reconfigure a pro-dam storyline focused on GHG emissions and environmental limits. The divergences between pro-dam and resistance storylines represent the occurrence of *contested sustainabilities*, in which the (un)sustainability of a particular project is subject to contestation (Harris, 2009).

In highlighting this interplay and reconfiguration, this thesis has illuminated an understudied area of research: how resistance coalitions contest the construction of a dam by not only advancing their own storylines but, also, by challenging and modifying key pro-dam storylines of justification. With dam-construction enjoying a renaissance in the 21st century, it is little surprise that the resistance against hydropower continues also, with anti-dam protests occurring across the globe (Del Bene et al., 2018). By exploring these moments of contestation, scholarship is able to analyse the common trajectories and particular nuances of these anti-dam struggles. For example, are there common tendencies contained within the respective resistance storylines - or are the tropes and narratives adopted by resistance actors dependent upon the context of a dam's construction? Are the pro-dam storylines forwarded to legitimise dams in the Mekong basin of south-east Asia subject to similar processes of interplay and contestation as they are in the Brazilian Legal Amazon region?

However, the uncovering of the reconfiguration of a storyline of sustainability also presents an opportunity for future research to explore the moments of contestation surrounding contemporary dams as processes in which the term 'sustainability' is inscribed with new meaning and positioned in a new chain of equivalence and alternatives put forward. Environmentalist movements and ecological distribution conflicts across the globe highlight the contested meanings of the term sustainability, as well as positioning the term within a signifying chain that fills it with an alternative definition (Scheidel et al., 2017). The analysis within this thesis has illuminated the contested character of the concept of sustainability within the construction of contemporary hydropower projects. In highlighting the numerous acts of articulation that link the concept of sustainability to additional and emergent demands and grievances, this thesis opens up a route for exploring the storylines forwarded by other environmentalist movements. The theoretical framework adopted within this thesis provides a promising route of analysing these alternative and contested sustainabilities (such as food sovereignty, ecological debt, post-extractivism and climate justice) by allowing future analysis to explore the points of contestation and

reconfiguration in other terrains of environmental and energy politics. It is by forwarding these new and alternative signifying chains that resistance actors can contest dominant storylines of sustainable development in contemporary environmental politics.

Directions for future research

Having outlined the argument and contribution of this thesis, I now turn to reflect on the research process and the avenues that this project has opened for future work. The analysis of how notions of sustainability and storylines engage in a process of interplay can be extended to include the analysis of the competing storylines of sustainability forwarded by different civil society groups. Environmental non-governmental organisations adopt divergent definitions of sustainability (Scherrer, 2009) and this was evident in a number of interviews conducted within this research (I4; I13). For example, when discussing the role of international civil society groups in opposition to Belo Monte and São Luiz do Tapajós projects, an interviewee, based at a domestic human rights organisation, explained that:

It is kind of tricky that some environmentalists do not consider themselves as human rights defenders (I4).

In making this statement, the interviewee is simultaneously arguing for the necessity of including the protection of human rights within a definition of ‘sustainability’ and highlighting how a number of other resistance actors do not commit to such an equivalence. This statement illuminates a disconnect between civil society groups, located within the resistance coalition, with some groups focused on storylines of the human rights of impacted communities and others forwarding storylines linked to environmental impacts (Zhour, 2010; Bolaños, 2011; Bratman, 2014). This is also evident in an interview conducted with a representative of the Brazilian arm of an international environmentalist organisation, with the interviewee explaining that the storyline that articulated the equivalence between the projects studied and a wider encroachment on indigenous territory by developmentalist or extractivist practices represented “more a marketing strategy than really an issue” (I13). With the Brazilian pro-dam coalition previously absorbing certain issues, demands and grievances into pro-dam storylines as a ‘wedge’ to disrupt resistance groups (Bratman, 2014), this disconnect between domestic and international groups represents a potential weakness in the resistance coalition. The analysis contained within this thesis has not explored this particular issue and, as a result, it provides a promising route for future research - How do these points of contention and difference originate, develop and operate *within* the resistance coalition? Exploring these questions will be particularly effective for research exploring the nuances of the process of ‘scaling up’ local demands into a more-global environmental storyline.

This disconnect between different actors and groups in the resistance coalition can also result in

demands and grievances becoming subsumed into wider storylines of resistance. With this thesis concentrating its analysis on the storylines by resistance actors primarily found at the national and international level, future research would benefit from paying more attention to local actors, grievances and demands. With the supremacy of a wider storyline often coming at the expense of initial local demands and grievances (Schlosberg, 1999; Rangan, 2000), it is important to interrogate this process further by engaging with local groups and understand the perspectives of local actors regarding the role of national and international organisations, the ‘scaling up’ of local grievances and demands and the transformation of the Belo Monte and São Luiz do Tapajós into sites of a wider struggle. As a result, it is important for future work to explore the consequences of this ‘scaling up’ and understand how local grievances and demands are themselves reconfigured by resistance actors at the national and international levels.

Finally, there a number of methodological points that would benefit future research into the interplay between pro-dam and resistance actors in Brazil. First, whilst this thesis analysed a number of translated materials, future work would benefit with a greater focus on the analysis of materials in Brazilian Portuguese. The translation of a text can never be complete and infallible, with nuances of the original text at risk of being lost or disrupted. As a result, future research into this topic must incorporate a greater degree of multilingual analysis, allowing for research to focus on the use of lexical choice and metaphor within resistance storylines. In examining these nuances, future analysis will be able to further its understanding of the acts of articulation contained within resistance storylines and discuss how the use of certain words and concepts may represent the emergence of additional storylines.

Second, future work would benefit from returning to the resistance actors who were interviewed and responded to questionnaires to develop a greater understanding of how the resistance storylines discussed are themselves subject to reconfiguration over time. How have these storylines been changed to respond to contemporary events in Brazil? With actors who had been supportive of dams distancing themselves from the infrastructure, have the resistance storylines profiled here been reapplied to other developmentalist activities, such as mining or agriculture? Furthermore, this return to the respondents discussed in this thesis will also allow for a degree of ‘member-checking’, in which the actor is able to reflect upon and address their previous contributions and how they are presented in research output.¹²³ This return to the resistance actors

¹²³ This process of ‘member checking’ also addresses a limitation of a theoretical framework derived from post-structuralist discourse theory. A problem with discourse theory is that researchers characterise the acts of articulation discussed as representing a conscious act, deployed by a rational actor, to create meaning (Torfing, 2005: 24). However, the discourse advanced by interviewees and questionnaire-respondents is the result of both the actors’ subjectivity and the environment in which the actor makes the respective statement. As a result, an actor does not have a full agency over the storylines advanced within a research setting - with the position of the researcher having a significance and at

discussed with this thesis would allow for a further exploration of how resistance storylines themselves are reconfigured to make sense of new events, processes and threats, as well as how a particular respondent's acts of articulation may change over time.

Conclusion

The analysis developed in this thesis demonstrates how, in short, the storylines forwarded by pro-dam actors to legitimise and depoliticise contemporary hydropower projects are not assured, hegemonic or set in stone. Instead, they remain open to contestation and reconfiguration. In opposing the Belo Monte and São Luiz do Tapajós projects, resistance actors have forwarded a number of different storylines that highlights the impacts of the respective dams, the interests behind their construction and the wider hostility towards indigenous communities that they represented.

Hydroelectric projects continue to be planned, constructed and contested in the 21st century and these processes of reconfiguration, repoliticisation and 'scaling up' will be replicated across the globe. Whilst dam projects of the past have been legitimised by storylines of high modernism, economic growth and the 'conquering' of a hostile nature, contemporary projects are presented as sustainable endeavours. Although underpinned by both international environmental policy and a moral legitimacy, this storyline of sustainability remains open to reconfiguration. It is by contesting the planning and construction of these dams that anti-dam movements not only challenge the respective dam but also reconfigure its presentation as a sustainable project. In doing so, the resistance movements against the Belo Monte and São Luiz do Tapajós dams illuminate the impacts of the projects, expose the political interests behind them and foreground them within wider struggles for rights and identity. It is by advancing these storylines that the resistance coalition put forward an alternative understanding of the sustainability of the Belo Monte and São Luiz do Tapajós dams and challenge the location of hydropower in contemporary sustainable development agendas. With the discourse of sustainable development ambiguous and malleable, its hold on environmental politics will always be open to contestation. It is resistance movements such as this – occurring across the globe – that move beyond depoliticised notions of sustainability and towards a reconfigured definition of a sustainable future.

I am but drop of water in the ocean, but together with many others we can shape the force of its waters and make change. This is what motivates my commitment to continue fighting, so that human rights, social-environmental justice, and that life be affirmed for present and future generations!

Antônia Melo, *Xingu Vivo para Sempre*, October 2017 (S444)

risk of influencing the discourse detected within interviews (Torfing, 2005). A process of member checking would allow for respondents to discuss if they understand the analysis to be accurate.

Appendix

Timeline of the Belo Monte project

- 1975** *Centrais Elétricas do Norte do Brasil S/A* (Eletronorte) commissions studies to evaluate the hydroelectric potential of the Xingu River.
- 1979** Five potential dam sites on the Xingu river are identified, including Kararaô and Babaquara.
- 1980** Feasibility studies in Kararaô and Babaquara begin.
- 1987** *Centrais Elétricas do Norte do Brasil S.A.* (Eletrobrás) publishes its *Plano Decenal de Expansão de Energia, 1987-2010*. This document lists 297 dams to be built in Brazil, including Kararaô and Babaquara.
- 1988** Kayapó Caciques travel to Washington, D.C. to pressure the World Bank to suspend its funding for the project.
- 1989** 19-24 February: The Altamira Gathering is held.

11 October: Eletronorte submits final feasibility studies to the *Departamento Nacional de Águas e Energia Elétrica* (Department of Waters and Electric Energy, DNAEE) for review and approval. DNAEE rejects the project and it is removed from national energy plans.
- 1998** *Eletrobrás* publishes its *Plano Decenal de Expansão de Energia, 1999–2008*. The plan includes redeveloped versions of the Babaquara and Kararaô dams - now renamed Altamira and Belo Monte. The Altamira project will later be removed from this plan.
- 1999 -2000** *Ministério de Minas e Energia*, *Eletrobras* and *Eletronorte* all confirm interest in the redesigned Belo Monte project. Feasibility studies begin.
- 2001 - 2002** The Brazilian energy crisis, in which prolonged period of drought leads to power shortages and rolling blackouts.
- 2001** 25 August: Ademir Alfeu Federicci ('Dema'), prominent local opponent of Belo Monte, is found murdered.
- 2002** *Eletrobras* and *Eletronorte* submit feasibility studies to *Agência Nacional de*

Energia Elétrica (ANEEL), with new Belo Monte plans including a run-of-the-river design and the construction of a total of three dams (Belo Monte, Pimental and Bela Vista).

- 2005** 13 July: Legislative Decree No. 788 authorises construction of Belo Monte.
- 2006** 31 January: The environmental licensing process begins.
- 2007** The *Programa de Aceleração do Crescimento* is published, with Belo Monte considered a priority.
- 2008** *Xingu Vivo para Sempre* formed.
- 2010** 1st February: The preliminary license for Belo Monte is provided by *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (IBAMA), with the project's environmental impact assessment accepted.
- 18 February: *O Banco Nacional de Desenvolvimento Econômico e Social* (BNDES) announces that it will finance up to 80 percent of the investments needed to build Belo Monte.
- 2011** 1 April: The Inter-American Court for Human Rights issues precautionary measures against Brazil, arguing that government violated its commitment to the International Labor Organization's Convention 169 by failing to consult with local indigenous communities.
- 30 April: President Dilma Rousseff withdraws Brazil's ambassador to the Organisation of American States and suspends annual payments to the organisation.
- 1 June: IBAMA issues a full installation license for Belo Monte project. Construction begins.
- 2015** 30 March: Belo Sun Mining Corporation announces feasibility study for its Volta Grande Gold Project.
- 2016** 21 April: First turbine enters commercial operation at Belo Monte project.

Timeline for the São Luiz do Tapajós project

- 2005** Eletronorte and Camargo Corrêa conduct preliminary studies of the hydroelectric potential of the Tapajós river.
- 2010** Brazil's Second *Programa de Aceleração do Crescimento* (PAC-2) is released, including six dams on the Tapajós and Jamanxim Rivers and five dams on the Teles Pires River (a tributary to the Tapajós).
- 2012** 6 January: The Brazilian government publish Provisional Measure 558 which reduces the area of four conservation units in the Brazilian Amazon. This includes protected areas in the Tapajós basin.
- 17 February: IBAMA issues the terms of reference for the Environmental Impact Assessment for São Luiz do Tapajós project.
- 2013** Ten dams on the Tapajós, Teles Pires and Juruena rivers, including the São Luiz do Tapajós project, are included in the *Plano Decenal de Expansão de Energia, 2013-2022*.
- 'Operation Tapajós' begins, with biologists and support staff conducting impact assessments in the Tapajós basin. After a number of these technicians are expelled or captured by the Munduruku community, their presence in the region is supported by members of the *Força Nacional de Segurança* (National Security Force).
- 2014** *Grupo de Estudos Tapajós* submit the environmental impact assessment to IBAMA for review and approval.
- 2014** September: Leaders of the Munduruku community travel to meet with Maria Augusta Assirati, the President of *Fundação Nacional do Índio* (FUNAI), to pressure the agency to demarcate the Sawré Muybu indigenous territory.
- 2016** June: Assisted by Greenpeace, the Munduruku community begin the self demarcation of the Sawré Muybu territory.
- April: In response to a report, published by FUNAI, which confirmed the demarcation of the Sawré Muybu territory, IBAMA suspend the environmental licensing process of the São Luiz do Tapajós project.
- August: IBAMA denies of the preliminary license for the São Luiz do Tapajós project, removing it from national energy plans.

Signs identified in analysis

At the first stage of data analysis, I identified a number of key themes discussed by resistance actors. I include these below:

Agribusiness	Alternative energy sources	Biodiversity
Capitalism	Celebrity Activism	Chinese investment
Colonialism	Corruption	'Criminalisation'
Deforestation	Dilma Rousseff	Economic development
Environmental Impacts	Extraction	FUNAI
Greenhouse gas emissions	Human rights	Impeachment
Increased violence	<i>Lava Jato</i>	Local impacts
Luiz Inácio Lula da Silva	Methane	Michel Temer
Military Junta	Mining	Indigenous communities
Renewable energy	<i>Ruralistas</i>	Security Suspensions
Sustainable development	Uncontrolled migration	

Example questions from interviews

In your view, what do the Belo Monte and São Luiz do Tapajós projects tell us about Brazil today?

You describe, a political project pursued by the PT. To what extent does the construction of hydroelectric dams fit within in this project?

The São Luiz do Tapajós has recently been cancelled - what was your reaction to this news?

Supporters of dams often characterise hydropower as a 'clean' and 'green' energy source - how do you respond to that argument?

Why do you think the government haven't pursued alternative energy sources - [such as] solar, wind?

Where did you organisation's opposition to this project begin? What tactics were employed?

Why was the São Luiz do Tapajós project archived, whilst the Belo Monte project is now entering into operations? What differences are there between the two projects?

Does the energy crisis of 2001/2 continue to provide a reason behind these projects?

In your view, why was the São Luiz do Tapajós project cancelled?

Many others have spoken of a tension between environmental protection and economic development - is this a point that you agree with?

Are there particular pro-dam actors who you believe have a major role in the planning and construction of these dams?

Example questions from questionnaires

How did you first hear of the Belo Monte/São Luiz do Tapajós project and the resistance against it?

The São Luiz do Tapajós project is one of many hydropower facilities currently under construction, or planned for construction, with the Legal Amazon region. In your view, should these rivers be harnessed for their energy potential? Or should alternatives be pursued?

Supporters of dams often characterise hydropower as a 'clean' and 'green' energy source - how do you respond to that argument?

The São Luiz do Tapajós project has recently been cancelled. In your view, what are the reasons behind this cancellation and do you think that this decision represents a turning point for the construction of dams in Brazil?

Criticism of these projects is often focused on their respective Environmental Impact Assessment - are indigenous rights addressed suitably in the planning process?

Belo Monte has often been presented by pro-dam actors as a foregone conclusion. In your view, what are the reasons behind the political belief in the project?

Many others have spoken of a tension between environmental protection and economic development - is this a point that you agree with?

It is a general question - but what is at stake with the construction of these hydroelectric dams in the Tapajós and Xingu basins?

Activists have often spoken about feeling 'betrayed' by Lula and Dilma - is this something you feel too?

Example of project information sheet and consent form provided to respondents [English]

Today's 'Hydraulic Societies': The discourse of the dams

Ed Atkins

Project information sheet (Last updated: 26/09/2016)

The building of a dam is often a contentious process. This research explores this relationship between discourse and dam construction via the analysis of the discursive structures that surround the hydroelectric complexes of Belo Monte and Tapajós, situated within the Brazil's Legal Amazon Region. In doing so, it argues that these dams have become sites of a contest between pro- and anti-dam coalitions, striving to define the infrastructure's meaning within a contested terrain of economic development, environmental sustainability and social benefits.

With Brazil possessing the greatest potential for hydroelectricity generation in the world, the harnessing of this energy has become a prominent factor in Brazilian politics – incorporating questions of environmental sustainability, indigenous rights and the future of Brazilian economic growth.

This research will explore these dams by analysing a series of interviews with individuals drawn from both sides of this contest - the pro-dam coalition and popular opposition movement. These interviews will be analysed as a means to explore and understand the competing understandings of these dams, but also why individuals are inspired to adopt a certain position on the construction of the Belo Monte and Tapajós complexes.

Examination of these viewpoints will allow for this research to explore the specific ways that the dam in 21st century Brazil illustrates how confrontational politics and the governance of water and energy have become inter-linked.

You can find a consent form for this project overleaf. This outlines your involvement in this research and requesting your approval for the use of our engagement in future outputs. Please read and complete this document and advise if you have any questions or concerns.

**Consent Form for
Today's 'Hydraulic Societies': The discourse of the dams**

Please tick the appropriate boxes

I confirm that I am 18 years of age or above

I have read and understood the project information sheet dated 26/09/2016.

I have been given the opportunity to ask questions about the project.

I agree to take part in the project. Taking part in the project will include *answering a series of questions over email and/or being interviewed and recorded (audio)*

I understand that my taking part is voluntary; I can withdraw from the study at any time and I will not be asked any questions about why I no longer want to take part.

Select only one of the next two options:

I would like my name used where what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognised.

I do not want my name used in this project.

I understand my personal details such as phone number and address will not be revealed to people outside the project.

I understand that my words may be quoted in publications, reports, web pages, and other research outputs but my name will not be used unless I requested it above.

I understand that the University of Bristol will use the data I provide for no purpose other than research.

Name of Participant Signature Date

Name of Researcher Signature Date

Example of project information sheet and consent form provided to respondents [Brazilian Portuguese]

"As sociedades hidráulicas de hoje": o discurso das barragens

Ed Atkins

Folha de Informações do Projeto (Última atualização)

26/09/2016

A construção de uma barragem é muitas vezes um processo contencioso. Esta pesquisa explora essa relação entre o discurso e a construção da barragem através da análise das estruturas discursivas que cercam os complexos hidrelétricos de Belo Monte e Tapajós, situados na Amazônia Legal do Brasil. Ao fazer isso, a pesquisa argumenta que essas barragens tornaram-se locais de uma disputa entre coalizões pró e contra as barragens, esforçando-se para definir o significado da infraestrutura dentro de um terreno contestado de desenvolvimento econômico, sustentabilidade ambiental e benefícios sociais.

Como o Brasil possui o maior potencial de geração hidrelétrica do mundo, o aproveitamento desta energia tornou-se um fator importante na política brasileira – incorporando questões de sustentabilidade ambiental, direitos indígenas e o futuro do crescimento da economia brasileira.

Esta pesquisa irá explorar estas barragens através da análise de uma série de entrevistas com indivíduos selecionados de ambos os lados desta disputa - a coalizão pró-barragem e o movimento de oposição popular. Estas entrevistas serão analisadas como um meio para explorar e compreender as visões divergentes sobre as barragens, mas também as razões pelas quais os indivíduos são levados a adotar uma certa posição sobre a construção dos complexos de Belo Monte e Tapajós.

O exame desses pontos de vista vai permitir que esta pesquisa explore as formas específicas que a barragem no Brasil do século XXI ilustra como a política de confronto e a governança da água e da energia tornaram-se interligadas.

Formulário de Autorização para
"As sociedades hidráulicas de hoje": o discurso das barragens

Por favor, marque as opções apropriadas

Confirmando que tenho 18 anos de idade ou mais

Li e compreendi a folha de informações do projeto datada de 26/09/2016.

Foi-me dada a oportunidade de fazer perguntas sobre o projeto.

Concordo em participar do projeto. *Tomar parte no projeto incluirá ser responder a uma série de perguntas sobre e-mail e/ou ser entrevistado e gravado (áudio)*

Eu entendo que minha participação é voluntária. Posso retirar-me do estudo a qualquer momento e não serei solicitado a responder quaisquer perguntas sobre por que eu não quero mais participar.

Escolha apenas uma das duas opções seguintes:

Eu gostaria que o meu nome fosse utilizado onde o que eu disse ou escrevi como parte deste estudo seja utilizado em relatórios, publicações e outros produtos da investigação, de modo que qualquer contribuição minha para este projeto possa ser reconhecida.

Eu não quero que o meu nome seja utilizado neste projeto.

Eu entendo que os meus dados pessoais, como número de telefone e endereço, não serão revelados para as pessoas fora do projeto.

Eu entendo que as minhas palavras podem ser citadas em publicações, relatórios, páginas da web e outros produtos da investigação, mas o meu nome não será usado a menos que eu tenha solicitado acima.

Eu entendo que a Universidade de Bristol não usará os dados que eu forneci para qualquer outro propósito além da pesquisa.

Nome do Participante

Assinatura

Data

Nome do Pesquisador

Assinatura

Data

Corpus

Interviews and Questionnaires:

Interviews:

Interviewee 1	Journalist, International.
I2	Academic researchers [x2]*
I3	Journalist, International.
I4	Representatives [x2], Domestic human rights organisation
I5	Journalist, Domestic
I6	Representative, Domestic arm of international environmental organisation
I7	Representative, Domestic arm of international environmental organisation
I8	Representative, Domestic human rights organisation
I9	Representative, Domestic environmental organisation
I10	Representative, Ministry for Mines and Energy
I11	Representative, Domestic environmental organisation*
I12	Representatives [x2], IBAMA
I13	Representative, Domestic arm of international environmental organisation
I14	Representative MPF*
I15	Representative, FUNAI*
I16	Journalist, Domestic
I17	Journalist, Domestic

I18	Academic researcher
I19	Senior Operative, Norte Energia
I20	Federal Deputy, PSOL*
I21	Representative, international environmental organisation

* Translator used

Questionnaires:

Questionnaire 1	Public figure, international
Q2	Public figure, international
Q3	Academic researcher*
Q4	Representative, domestic environmental organisation
Q5	Representative, international environmental organisation
Q6	Academic researcher
Q7	Academic researcher
Q8	Representative, domestic socio-environmental organisation
Q9	Representative, international human rights organisation
Q10	Representative, international indigenous rights organisation
Q11	Representative, domestic human rights organisation
Q12	Journalist
Q13	Representative, Xingu Vivo*

* Translated by third party

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