



## Development blind spots and environmental impact assessment: Tensions between policy, law and practice in Brazil's Xingu river basin<sup>☆</sup>

Eve Bratman<sup>a,\*</sup>, Cristiane Bená Dias<sup>b</sup>

<sup>a</sup> Department of Earth & Environment, Franklin & Marshall College, 415 Harrisburg Ave., Lancaster, PA 17603, United States

<sup>b</sup> World Bank Group, United States



### A B S T R A C T

This paper explores the tensions involved in Environmental Impact Assessments (EIAs) and environmental licensing through a detailed analysis of the legal disputes and public contestations surrounding two projects, a large hydroelectric dam and a gold mine, which are proximately located to each other. Broadly, we argue that EIAs may function to reinforce rather than genuinely inform or potentially resist prevailing developmental logics. The research extends David Mosse's argument that development self-perpetuates "success" through participation and procedural licensing mechanisms while on-the-ground realities diverge significantly. It offers a critical examination of EIA utility and processes through identifying three general mechanisms within EIA and environmental licensing procedures that contribute to approval of projects and promote a perception of their legitimacy, while detracting from the intended purposes of EIAs as opportunities for meaningful public discussion and sustainability-oriented decision making. These mechanisms include discourses that entrench project necessity and make them appear inevitable, public participation, and the isolated treatment of related projects. This work situates an understanding of particular EIAs within a deeper process of regional territorial development and resource extraction.

### 1. Introduction

Environmental Impact Assessments (EIAs) were originally devised to mitigate detrimental environmental consequences through offering scientific assessments of proposed projects, but in practice, EIAs are frequently outweighed by economic and political concerns, especially in the developing world (Bawole, 2013, Jay et al., 2007). Similarly, development practitioners rely upon public participation with the aim of more adequately responding to local people's needs and stakeholders' concerns, yet in practice, these efforts frequently become mechanisms of co-optation, through which the projects of more powerful political and financial actors are projected and the logics of project success are promoted (Cooke and Kothari, 2001, Mosse, 2011a).

The research presented here delves into the question of how EIAs function in relation to national agendas for energetic and extraction-oriented development within the context of the Brazilian Amazon. Specifically, we ask: how are laws and regulations associated with the EIA and environmental licensing protocols used by both project proponents and critics, and what are the effects in terms of project outcomes? Scholarship on EIAs tends to look enthusiastically toward the

ability for such assessments to positively inform projects, but there is a relative dearth of understanding about how EIA procedures may also function in a less-positive manner. Our work interrogates project licensing in Brazil, and contributes toward a more nuanced understanding of how participation, EIA procedures, and individual project focus contribute toward a broader political economy of resource extraction. Drawing upon Mosse's analysis of international development practice (2005) we argue that the participatory processes, de-politicization through scientific assessments, and the single-project focus EIAs may be used to re-frame broader development agendas and narrate project success, even when the very legitimacy of the projects is legally dubious, at best. Ultimately, these mechanisms shore up perceptions of legitimacy and inevitability for projects that promote extractive political-economic aims and depoliticize extractive development interventions, while neglecting environmental and social concerns expressed in legal actions.

This paper focuses on two projects located only 10 km from each other on the Xingu river, in the Brazilian Amazon, within the state of Pará. The Amazon region is a tropical rainforest ecosystem of global significance, and both of the projects are high-profile nationally and

<sup>☆</sup> The authors gratefully acknowledge funding received from a 2015 Tinker Field Research Grant from the American University Center for Latin American and Latino Studies, which helped support this research. Kind thanks also to Scott Freeman and three anonymous reviewers for their comments.

\* Corresponding author.

E-mail addresses: [Ebratman@fandm.edu](mailto:Ebratman@fandm.edu) (E. Bratman), [cristiane.dias@american.edu](mailto:cristiane.dias@american.edu) (C.B. Dias).

internationally. The Belo Monte hydroelectric project is slated to be the world's fourth-most productive dam when operating at full capacity. The other case study is gold mining project in the same geographic region of Brazil called the Volta Grande Mining Project (hereafter Volta Grande). The Volta Grande mine is run by the Canada-based Belo Sun Mining Corporation (hereafter, Belo Sun). It is an open pit mine, involving investments of approximately \$380 million, and when constructed would be Brazil's largest gold mine. Given their prominence, these projects are significant cases for assessing the relevancy and role of EIAs in relation to sustainable development politics. Project licensing processes – in which EIAs are a prominent component – present important moments for legal challenges, social contestation, and adaptation of projects, prior to full operational authorization.

In Brazil, numerous procedural and bureaucratic challenges, as well as the powerful ruralista agricultural political bloc exert pressure to reform EIAs through streamlining and simplifying EIAs and environmental licensing processes (Fonseca et al., 2017). Our research contributes to the EIA debate in Brazil since it discusses how EIAs function in current practice, in two bellwether cases. Our aim is to explore the effects of EIAs on regional development trajectories. This paper offers evidence that EIAs may give projects an appearance of inevitability and may promote the appearance of legitimacy of actions taken by powerful economic and political actors seeking project approvals, ultimately promoting and reinforcing narratives of sustainable development in the Amazon region that are essentially extractive in orientation. This research highlights three mechanisms that give rise to such phenomena: first, project proponents create a perception of necessity for intervention based on discourses about regional poverty, the need for more investment, and the supposed sustainability benefits of a project. Second, public participation is used as a step to co-opt stakeholders and legitimize projects that entail hefty environmental and social consequences. Third, EIAs may de-politicize developmental interventions by positioning project evaluation within bureaucratic and institutional logics of technocratic management, while silencing corruption, larger territorial transformations, and human rights violations.

## 2. Methods

In this paper, case studies help illustrate our argument concerning how the uneven power dynamics involved in EIA procedures function to create perceptions of project success and legitimacy, especially as they are situated within larger regional development politics. Case study research offers a contextually-rich basis for understanding developmental phenomena (Baxter and Jack, 2009, Yin, 2003). The empirical basis of research in the case study sites involved participant-observation at approximately 25 NGO-led local meetings, as well as three public hearings, and several meetings of municipal health and environmental councils and public hearings. Field and interview notes and relevant transcripts were collected and then coded with an aim of identifying key themes. In the case of the Belo Monte dam, ethnographic field research based in the region first began with preliminary field research in 2005, and then became formalized in 2006–2008 with two years of focused participant-observation, taking place predominantly at the offices of the Altamira-based Pastoral Land Commission. Accompaniment of the case and subsequent research trips involved interviews in Brasília, São Paulo, and Belem in 2009 and 2010. Follow-up research specifically focused on Belo Monte contestation was conducted in 2012 and 2016, during which approximately 30 semi-structured interviews were conducted. Analysis of environmental licensing procedures was carried out through a review of all relevant legal documentation and transcripts of public hearings. Participant-observation in meetings organized by civil society to discuss the Volta Grande gold mine also complemented document review. In total, well over 100 interviews were conducted with public officials, local activists, and others directly working on or directly affected by the Belo Sun mine and Belo Monte dam projects.

The research presented here focuses on the legal-historical context of permitting for the Belo Monte project, which subsequently informs the Volta Grande project. This fills an important gap, since scholarship on this part of the Amazon largely focuses on the Belo Monte case in isolation or in relation to other Amazonian hydroelectric projects, with little attention to the relationship of the dam to other regional development politics (e.g. Bratman, 2014, da Fonseca and Bourgoignie, 2011, Fearnside, 2005, Hall and Branford, 2012, Klein, 2015, Randell, 2016). Environmental assessment scholarship identifies the need for more research concerning the context-specific dimensions of how power, discourses, agency, and expectations (among other non-rational variables) can shape and influence environmental assessment (Cashmore and Axelsson, 2013, Cashmore et al., 2008, Cashmore and Richardson, 2013). Additionally, these cases are relevant because the Amazon region is one of global importance because of its cultural and biological diversity, its role in global climate change, and its abundant freshwater. Like other countries, Brazil has strong environmental laws and institutions, but continues to pursue industrial and economic development aggressively. These cases are illustrative of the tensions between environmental protection and economic growth goals in Brazil and other developing countries. Moreover, they illustrate theorization, largely from Mosse (2004, 2005, 2011b) and Li (2007) on how projects become narrated into larger institutional logics of success, and reveal how EIAs may perpetuate uneven power dynamics (Cashmore et al., 2008). As such a large project, the Belo Monte dam plays a key role as an influence in Brazilian hydroelectric and energy policy, and the Belo Sun mine is similarly symbolically and economically significant for the Amazon region.

## 3. Theory: environmental licensing and public participation in development projects

Scholarly debate exists both over how best to conduct licensing within environmental assessments, and what role unequal power dynamics play in influencing environmental assessments (Cashmore and Richardson, 2013). For some, increased thoroughness of EIAs, greater transparency, and issuance of best practice guidelines can avoid many commonly-encountered flaws in licensing processes (Hofman, 2015, Ritter et al., 2017). Scholars generally view public participation as a net benefit for many constituencies affected by project impacts, because it can strengthen engagement and local community influence over environmental assessment processes (Appiah-Opoku, 2001, Bawole, 2013, Morgan, 2012). But the notion of what meaningful participation entails is itself contested, and can lead to a wide variety of outcomes in terms of environmental assessment process' relationship to sustainable development outcomes (Rozema et al., 2012). Critical development theorists, on the other hand, suggest that procedural measures can be a tokenistic way of pushing projects forward, with documentation and participatory processes being privileged over actual content and resulting in harms for community members (Bebbington, 2004, Li, 2009). In this view, participation can co-opt communities, and reinforce projects that ultimately do little to benefit community members. At the most extreme, some argue that participatory processes may become a “tyrannical” force, promoting imposition of projects (Cooke and Kothari, 2001). EIA effectiveness, similarly, is frequently hampered by a technical and procedural focus, rather than concentrating on the role and form of EIAs in relation to debates over societal values, priorities, and power differentials (Cashmore and Axelsson, 2013, Cashmore et al., 2004).

Examination of both discourses and technical processes can help reveal how power operates within environmental assessment and environmental licensing research. Anthropologist David Mosse argues that in practice, development projects and actors in the aid industry may promote perceptions of development interventions as legitimate, while subsuming deep ideological differences and shortcomings of projects within narratives of success. Rather than more genuine participation or

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات