

Social mobilization against large hydroelectric dams: A comparison of Ethiopia, Brazil, and Panama

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Abstract

Large-scale hydroelectric dams have—throughout their history—had adverse impacts on local population groups, natural resources, and entire eco-systems furthering resistance and protest against them.

In this paper, we aim to investigate the impact of social mobilization against large-scale dams by considering political opportunity structures, actor constellations, and frames. We comparatively analyze three case studies in varying political systems, that is, Gibe III in Ethiopia, Belo Monte in Brazil, and Barro Blanco in Panama. Our investigation is based on field research in these countries comprising data collection of governmental reports, newspaper articles, materials published by civil society organizations, and semi-structured interviews. The analysis reveals that the impact of mobilization against dams is certainly limited in contexts with authoritarian governments. In democratic contexts, the impact depends on the degree of external involvement, as well as the ability of movements to avoid fracture, especially in view of temporal dimensions of large infrastructure projects.

KEYWORDS

hydroelectric dams, social movements, protest, development, green growth, Gibe III, Belo Monte, Barro Blanco

1 | INTRODUCTION

Despite promises to increase energy access and foster low-carbon economic growth, large-scale hydroelectric dam projects have continuously had severe impacts on local population groups, natural resources, and entire eco-systems. This has furthered resistance, protest, and social mobilization against dams. In this article, we examine how social mobilization can have an impact on dam-building. We understand impact as a change in the way dam projects are planned or implemented.

The objective of this paper is to inductively investigate this question by comparatively analyzing three case studies, Gibe III in Ethiopia, Belo Monte in Brazil, and Barro Blanco in Panama. We have selected these cases because they have important commonalities and are typical cases representing governmental visions of green growth. However, this case selection also displays an important variety of contextual factors, political

conditions, and degrees of social mobilization. Ethiopia has an authoritarian government that severely represses its civil society; in this case, social mobilization was particularly low. In Brazil, protests against Belo Monte were initially successful in the 1980s but then failed to effectively stop the dam, not least because it was a democratically elected and economically successful government pushing the project. In Panama, social mobilization in a democratic environment was so strong that it led to a suspension of dam construction. Although the dam project later became fully operational, a positive impact of social mobilization was the renegotiation of conditions for affected indigenous peoples.

Our analysis is based on field research in all of these countries comprising data collection of governmental reports, newspaper articles, materials published by civil society organizations (CSOs), field observation, and semi-structured interviews (Whyte, 1984; Witzel, 2000). We have evaluated this primary data using a qualitative

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content analysis (Mayring, 2015). In our analysis, we apply a comparative case study approach carving out commonalities and differences between the cases (George & Bennett, 2005). Although cross-country comparison between mobilizations concerning certain issues is now established in the sociology of social movements (Mertig & Dunlop, 2001), a specific comparison of mobilizations against dam-building has not yet been undertaken. Against this background, the nature of this paper is exploratory rather than explanative.

Our goal is to pave the way for more in-depth research on the impacts of anti-dam mobilization in regions where the burdens of the global struggle against climate change is loaded onto those who have contributed the least to global warming. In the following, we will first review the literature on social mobilization against dams and present our analytical framework. We will then introduce the three case studies and comparatively analyze them before we conclude.

2 | SOCIAL MOBILIZATION AGAINST DAMS—AN ANALYTICAL FRAMEWORK

Donors, development banks, and governmental actors have continuously presented large-scale dam projects as policies for sustainable development, modernity, and progress (Baird, Shoemaker, & Manorom, 2015). Governments hope to close the gap of a lacking energy infrastructure but also see a window of opportunity in receiving donor funds for green energy transition (Pan & Zhu, 2006; Urban, 2015).

Critical scholars emphasize that large hydroelectric dams represent a vision of neoliberal, capitalist development at the expense of marginalized communities (Sugden & Punch, 2014). Thus, dams can reveal ideological challenges to the dominant understanding of development (Gadgil & Guha, 1994). Many countries with dam projects have resettled and marginalized social groups, such as pastoralists and indigenous peoples (Dwivedi, 1999; Heggelund, 2006; Morvaridi, 2004). Their governments use such strategies as ways of “nation-building” (Gadgil & Guha, 1994, p. 110). Communities’ ability to function on their ancestral lands, to use water sites, land, and forests for sustaining their livelihoods, are taken away through resettlement, denying access to rivers, or flooding habitation areas (Morvaridi, 2004; Schlosberg & Carruthers, 2010; Urban, 2015). Grassroots protest groups, social movements, and transnational advocacy networks (TANs) have tried to raise local concerns about the environment, human rights, and indigenous peoples (Grieco, 2016; Nordensvard, Urban, & Mang, 2015). Displacement in relation to dams or other development projects is one of the main concerns leading to mobilization and protest (Swain, 2016), often initiated at the grassroots level (Oliver-Smith, 2010). Protest mobilization has been particularly successful if a transnational alliance of advocacy actors was able to link up with domestic allies in democratic contexts (Khagram, 2004).

Our comparison of the three cases is guided by a variety of concepts concerning the structures, dynamics, and ideas of social movements, which we regard as complementary (McAdam, McCarthy, & Mayer, 1996). First, we will focus on the *frames* used by different

actors in relation to dam construction. Although we have used reference to green growth to select our cases, we aim at developing a deeper understanding of this frame by comparatively investigating its use. We will also explore counter-frames employed by those social actors opposing dam projects in more depth. We understand frames according to Goffman (1974) as cognitive structures regulating the perception, reflection, and reinterpretation of reality. Their function is to guide individual or collective action (Snow, Rochford, Worden, & Benford, 1986, p. 464). The selection and construction of cognitive frames belong to the most important strategies of actors in social movements (Keck & Sikkink, 1998, p. 18). Frame construction is successful if it resonates among the target group or the wider public. In the course of our empirical analysis, we will also pay attention to contrasting frames, frame alignment, and other aspects of meaning-making (Snow et al., 1986). Previous studies have shown that issue-framing can be an important success factor for social mobilization against dam projects (Kirchherr 2017). A second relevant set of concepts we refer to are the respective *political opportunity structures* (POS) as well as the wider political context of mobilization (Eisinger, 1973; Kriesi, 2004; Meyer, 2004). Tarrow (1998, pp. 19–20) defines POS as “consistent—but not necessarily formal or permanent—dimensions of the political struggle that encourage people to engage in contentious politics.” We will adopt this conceptualization and pay attention to identifying relevant variables of political struggle in the case analysis (Meyer, 2004). Meyer and Minkoff (2004) emphasize that political openness is one core element of POS. Tilly (1978) reveals that there is a curvilinear relationship between openness of the political system and political protest. Direct access to influence in a system makes protest unnecessary, whereas too many restrictions repress protesters and hamper important capacity development processes. Joachim (2003) suggests a distinction between POS and mobilization structures in order to evaluate how successful frames resonate within a transnational campaign. Differentiating between context and action is critical to understanding the relationship between structure and agency (Meyer, 2004). Whereas POS can be understood as access to (state) institutions and the broader institutional context that can provide opportunities or obstacles for frame resonance (Tarrow, 1998), mobilization structures refer to successful network-building (Joachim, 2003). The concept of POS resonates well with recent studies that emphasize the role of the state and the political regime in green energy transition (Lederer, Wallbott, & Steffen, 2018; Urban et al., 2015). Scholars accentuate that channels for political contestation with respect to energy decisions are more open in democratic systems, whereas restrictive political regimes tend to initiate repressive responses (Simpson & Smits, 2018).

Mobilization structures or *actor constellations* include norm entrepreneurs and their organizational platforms, reaching out to a heterogeneous international constituency, and the inclusion of experts, very often affected individuals themselves, who can share their experiences as testimonies (Joachim, 2003). Many constructivist studies highlight the role of non-state actors and TANs in processes of norm evolution and change (Keck & Sikkink, 1998). The use of information plays a critical role in transnational alliance-building. When communication

channels between local opposition groups and a (repressive) state government are blocked, the opposition can link with TANs providing them with information about the repressive situation within the country. TANs can then exert pressure on the respective government and demand a change. If transnational pressure from above and local pressure from below is exerted at the same time, the government may start to make tactical concessions or even engage in a dialogue about norm change (Risse, Ropp, & Sikkink, 1999). Transnational alliance-building and cross-border activism can successfully lead to improved hydropower development, strengthening environmental and social standards (Simpson, 2013). However, the leverage of TANs also depends on the targeted states and their domestic capacities (Bratman, 2014; Hochstetler, 2002). An additional central aspect in our analysis will be the shifting relations between different social movement actors and their respective environments in various arenas of mobilization, ranging from the local to the transnational. In this context, we will emphasize that such relations change over time and in response to the respective impact of the mobilization—or lack thereof (Rucht, 2004). Therefore, we will also take the temporal dimension of large infrastructure projects into consideration.

In our paper, we aim at gaining a better understanding of frames, POS, and actor constellations in different contexts. This will help us identify barriers and facilitators of the impact of social mobilization against dams. Although we recognize that the outcomes and consequences of social movements can be interpreted in many different ways (Giugni, 1998), we focus especially on influence in dam planning and implementation.

3 | CASE STUDIES

3.1 | Ethiopia

The Ethiopian government has initiated an ambitious “Climate-Resilient Green Economy” (CRGE) strategy in 2011 (GoE, 2011aa) and aims at becoming the African leader in low-carbon economic growth and a middle-income country by 2025 (GoE, 2011aa). Hydropower generation is a key priority in the CRGE. In the Ethiopian Herald, Wubete calls the Gibe III dam a “milestone for building Ethiopia's green economy” (Wubete, 2017).

Gibe III delivers electricity to more than 80 million people and even to regions that previously did not have access to electricity at all (HRW[Human Rights Watch], 2012). The dam is located about 300 km southwest of Addis Ababa, at the Omo River. Its construction began in 2006, but it did not become fully operational until the end of 2016, producing 1,870 MW of electricity. The dam more than doubles Ethiopia's current capacity so that the country will be able to sell energy to Sudan, Kenya, and Djibouti. Project development and oversight are in the hands of the Ethiopian Electric Power Corporation. Salini Impregilo, an Italian construction company, built the dam. The largest part of the funding is covered by the Chinese Export-Import Bank (EXIM), whereas the Ethiopian government contributes 572 million USD of its national budget to finance the project. The World Bank

(WB) had been involved in planning hydroelectric power projects in Ethiopia since the 1980s. After carrying out preliminary evaluation studies, the WB, the European Investment Bank (EIB), and the African Development Bank (AfDB) announced in 2010 that they were no longer considering funding Gibe III due to serious doubts relating to adverse social and environmental impacts (International Rivers, 2011).

In 2009, before the Green Economy strategy was adopted but when dam-building was already in progress, the authoritarian Ethiopian government passed the *Charities and Societies Proclamation*, which came into force in 2010. This law heavily restricts and controls the activities and publications of CSOs in the country, in particular with respect to human rights and minority issues. Moreover, Ethiopia ranks fourth among the most censured countries according to the Committee to Protect Journalists (CPT, 2015), imposing severe restrictions on the press and the media, and arresting journalists, opposition groups, and researchers who raise critical questions.

When violent resettlements of indigenous peoples living along the Omo River were carried out by the police and the military, there were hardly any functioning CSOs in the country that could effectively protest, report on rights infringements, or deliver information to international allies. Indigenous communities—including the Mursi, Bodi, Kwegu, Karo, Hamar, Suri, Nyangatom, and Daasanach—had not been informed or consulted regarding the dam project. They all depend on the river for agricultural purposes and for feeding cattle on flooded grazing lands (HRW, 2012, p. 1–2) as they have traditionally lived as agro-pastoralists or pastoralists or reverted to fishing as an additional source of livelihood (Carr, 2012, p. 57).

3.1.1 | Political opportunity structures

Ethiopia has a restrictive authoritarian government, which is considered as “not free” according to the Freedom House Index with the worst scores for political liberties, that is 7 out of 7 (7 means least free) and civil liberties, that is, 6 out of 7 (7 means least free; FHI, 2017). The 2009 *Charities and Societies Proclamation* strictly limits the advocacy work of CSOs trying to lobby the government to improve the situation of pastoralists and indigenous communities affected by the dam. In October 2016, the Ethiopian government declared a state of emergency, limiting even more rights and freedoms, to regain governmental control over oppositional protests of ethnic groups as a reaction to rigorous development programs. The last state of emergency was declared in February 2018 after Prime Minister Hailemariam Desalegn resigned from office (BBC, 2018).¹

3.1.2 | Actor constellations

Due to the constraints in the POS and hampered outreach to international allies, there was hardly any social mobilization against Gibe III

¹The underlying research for this article has been completed in 2018 and does not include any new developments in Ethiopia after Prime Minister Abiy Ahmed has taken office.

in Ethiopia. The government built a strong alliance with the private investor EXIM and the construction company, Salini Impregilo. One of the interviewed NGOs described the dam implementation process with the following words:

"Did the people agree?—No. Did they give their free and full consent?—No. Did they get at least an amount of compensation?—No. [...] I always say it's like Wall Street coming into the villages [...]. They just care about their profits."²

The local people did not have a voice in the dam-building process. Only a few of them protested when they were threatened with violent relocation, but the military and the police arrested and killed these people (HRW, 2012). The demands of locally affected pastoralists and indigenous communities could hardly be taken up by CSOs in the country due to the 2009 Charities and Societies Proclamation. After it entered into force, CSOs were not allowed to work on indigenous or human rights advocacy anymore and if they did, their registration was cancelled by the government:

"Human rights-related issues are, you know, we are not allowed now to engage in such issues. [...] We don't have really the mandate and the power to talk about this and bring this to the table for the government to engage in advocacy and the like."³

Therefore, CSOs mainly focused on providing social services and support at the grassroots level, but did not manage to engage in transnational alliance-building or delivering information to international advocacy partners.

3.1.3 | Dominant frames

Ethiopia's government was advised by the consultancy firm McKinsey & Co. to pursue a green development strategy with one focus being investment in hydroelectricity. The CRGE was formulated by the former Environmental Protection Authority under leadership of then Prime Minister Meles Zenawi, who ruled the country between 1995 and 2012. The CRGE vision entails that Ethiopia becomes African leader in low-carbon growth (GoE, 2011b) following a vision of neoliberal development. The main frame used in governmental policy documents and expert interviews at the Ministry of Water and Energy is transformation to a green economy. Realizing economic development goals, however, has always been at the forefront and a rigorous implementation strategy has been employed. Green economy is simply a frame used to align donors' funding priorities—that is, climate change mitigation and adaptation—with the government's priorities—that is, economic growth: "So they are asking the West to support their green economy. [...] That's helping them to gain more money, which they might use for their own political agendas."⁴ Even international NGOs confirm that this rhetoric frame alignment is a "politically extremely smart move in the game"⁵ in the name of economic growth.

Affected people, mainly indigenous communities, who protested against relocations and severe interference into their traditional livelihoods, were depicted by the government as "very communal, very primitive."⁶ In an interview, an expert of the governmental research institute that was one of the key players in drafting the CRGE even stated: "People never accept new things. [...] They are very backward."⁷ This shows that if you opposed this development strategy, you were portrayed as being backward. The government very much emphasized how it wanted pastoralists to become agriculturalists and successfully integrated this plan into the resettlement strategy. CSOs further emphasize that behind these assumptions is a vision of development as modernization: "So if you are talking about [...] the rights of these people, then you will be challenging the ways, the ideas that you are against the development, the modernization of these communities."⁸ This means a second important frame or a contrasting pair of frames used is modernization versus backwardness.

3.2 | Brazil

Plans for a huge hydroelectric dam on the Xingu River started in the 1970s as part of the military regime's attempt at exploring the Amazon region for development purposes. However, local actors succeeded in mobilizing against the project and building up strong transnational networks (Bratman, 2014, p. 272). As a result, external funders including the WB withdrew their support and the project was effectively shelved (Hall & Branford, 2012, p. 852). Around the turn of the millennium, the plan was put back on the agenda (Fearnside, 2017, p. 19). The governments of the progressive Workers' Party under presidents Lula da Silva and Dilma Rousseff pushed the project forward in spite of local and transnational activism, whereas the movement against the dam was weakened due to friction (Klein, 2015, p. 1145). As a consequence, a judicialization of the opposition took place (Moraes Corrêa & Verás de Oliveira, 2015, p. 31). A series of court rulings temporarily halted the project several times but were routinely reversed by higher courts (Fearnside, 2017, p. 18). A supranational layer was added to the judicial opposition against the dam when the case was taken to the Inter-American Commission on Human Rights (IACHR) in 2011. The commission ordered the immediate stop of the project until the legal requirements had been met. However, Brazil responded by rejecting the ruling, suspending its payments, and pursuing the project nonetheless. Full operation of the dam is foreseen for 2020.

3.2.1 | Political opportunity structures

Since the late 1980s, mobilizations against the dam have taken place in a context of democratic transition and consolidation. Information flows are free and TANs could be built. The project that was

²Interview Ethiopian NGO_1

³Interview Ethiopian NGO_2

⁴Interview Ethiopian NGO_1

⁵Interview International NGO

⁶Interview Ministry of Water and Energy

⁷Interview Governmental Research Institute

⁸Interview Ethiopian NGO_2

approved by Congress in 2004 contained thorough modifications of the original plan drafted by the military rulers, a fact that has been interpreted as a sign of considerable responsiveness of the Brazilian democracy (Burrier, 2016, p. 347). The 2009 World Social Forum in Belém presented an important opportunity to raise worldwide awareness for the threat presented by Belo Monte.

In spite of these favorable conditions, mobilization impact was hampered by Brazilian economic autonomy: as opposed to the situation in the 1980s, the government could later realize the project without depending on external funding. This made it harder for activists to leverage the TANs because pressuring funding agencies, such as the WB or others, would not prevent the project (Bratman, 2014, p. 285). Brazil's strong political and financial position as an important regional player helped in its blunt rebuttal of the ruling by the IACHR, which demonstrated the limitations of the inter-American system of supranational law (Riethof, 2017, p. 493). Although Brazil is a functioning democracy with a vibrant civil society sector, activists are often threatened with violence. Furthermore, their criminalization is bound to intensify under the new president Jair Bolsonaro.⁹

3.2.2 | Actor constellations

In the process through which the dam on the Xingu River was put back on the agenda, the Brazilian electricity agency Eletrobrás played a central role. It is part of an influential constellation of pro-dam actors, which also includes the construction companies and industries producing electro-intensive commodities as well as mining companies (Hall & Branford, 2012, p. 852).

Surprisingly, the Workers' Party—especially Dilma Rousseff, as Minister of Mines and Energy and later as president of Brazil—pushed the project. Although corruption played a role in the party's support for the dam (Fearnside, 2017, p. 17), the project is also in line with its general neo-developmental vision of state capitalism (Hall & Branford, 2012, p. 855). Despite public funding, the government deliberately refrains from dominating the construction consortium Norte Energia. Thus, the project is “government-driven” but not “government-run” (Klein, 2015, p. 1139), which illustrates a typical parallelism of neo-developmental and neoliberal policies (Saad-Filho & Morais, 2012).

At the beginning, the most important opposition movement against the dam was the Movimento Pelo Desenvolvimento da Transamazônica e Xingu (MDTX). However, the pro-dam stance of the Workers' Party, with which the movement had strong ideational and material ties, caused a deep conflict of loyalty, illustrating a pattern of former movement allies turning into competitors and adversaries (Rucht, 2004, p. 209). Against this background, the MDTX and other organizations settled for an uneasy neutrality towards the dam and participated in negotiations over mitigation efforts, defending their position as based on an ethic of responsibility (Klein, 2015, p. 1147). When the actual implementation of the project began in 2010, a

rupture with the intransigent section of the movement emerged, which was led by the Movimento Xingu Vivo Para Sempre. Its principled opposition was supported by the Catholic Church, especially the local Bishop Dom Erwin Kräutler. Among the CSOs engaged in the struggle for resettlement and compensation for the affected populations, the Movimento dos Atingidos por Barragens (Movement of People affected by Dams) has acquired a more prominent role in recent years.

Indigenous leaders have also been at the forefront of the struggle against Belo Monte. However, in recent years the pro-dam side has succeeded in convincing many indigenous leaders to abandon their opposition in exchange for material rewards, which has led to severe friction within communities (Fearnside, 2017, p. 19).

Given the justicialization of the conflict, legal actors also play a major role in the fight against the dam. This is especially true for the *Ministério Público*, a special prosecutor in defense of the interests of the people. The branch in the state of Pará was the main driving force of a series of important—if temporary—legal victories against the dam.

3.2.3 | Dominant frames

One of the dominant frames recurred to in defense of the dam project is the claim that it provides clean energy and thereby contributes to the global goal of fighting climate change (Moraes Corrêa & Verás de Oliveira, 2015, p. 34). Belo Monte, as a model for clean energy generation, was the key message of the government's advertising campaign during the Rio + 20 summit in 2012, when it presented itself as a leader in the fight against climate change (Bratman, 2015, p. 72). In opposing this framing, anti-dam activists also emphasized the importance of preserving the planet, highlighting that the Amazon rain forest, which is threatened by the dam, is part of the “fundamental natural heritage for all Brazilians and all citizens of the world” (MDTX, 2001).

Besides its emphasis on clean energy, the government's priority is clearly economic growth, as is expressed in the name of its flagship program, the *Plan for the Acceleration of Growth*. In documents justifying Belo Monte, development is the most common frame. In the government's response to the IACHR ruling, it emphasized that electricity was fundamental for “Brazil's development goals,” including the goals to “promote human dignity, eradicate extreme poverty, and reduce inequalities” (Riethof, 2017, p. 491). Such claims are explicitly rejected by anti-dam activists: “[W]e feel affronted in our dignity and disrespected in our fundamental rights by the Brazilian state and private groups through the construction of dams on the Xingu [...]” (Encontro Xingu Vivo para Sempre, 2008). Some of the activists emphasize the extreme inequality in the distribution of the benefits of the project: “The dam produces riches for a few, but at the same time it puts people into a state of absolute misery.”¹⁰ Others reject the underlying developmentalist vision altogether: “We are against

⁹Interview member of Xingu Vivo Para Sempre based in Belém.

¹⁰Interview coordinator of MAB based in Altamira.

this model of exploitation, reprimarization and exportation. [...] Each people has its own way to relate to nature and we need to respect this."¹¹

Another decisive frame is democracy: For example, in 2010, Lula stated that the realization of the dam was a "democratic act" (Lula da Silva, 2010). In direct reaction to this speech, anti-dam activists recalled that in Altamira, the city close to the dam, this alleged act of democracy was always accompanied by a strong presence of police and military, drawing a parallel between Lula's visit to the Amazon and that of military dictator Médici in the 1970s (Salm, 2010).

3.3 | Panama

There has been social mobilization against dam-building on the Tabasará River in Panama since the 1970s, when the government first embarked on a drive to exploit water flows for energy (Campbell, 2014; Rubio & Tafunell, 2014). Following two failed proposals, the Barro Blanco project was the third dam to result in organized protest. The dam will flood land in the comarca Ngäbe-Buglé, an autonomous territory created in 1997 for the exclusive use of the local indigenous population.

The concessions to construct Barro Blanco were granted to developer Generadora del Istmo, S. A. (GENISA) in 2007 (Hofbauer & Mayrhofer, 2016). It was first proposed as a 19 MW structure; however, it was later increased to 28.84 MW. Despite making a considerable difference to the maximum flood level, only one Environmental Impact Assessment (EIA) was conducted, using the specifications of the smaller dam (Jordan, 2008). Funding was secured from two European state-owned development banks, the Netherlands Development Finance Company (FMO) and the German Investment Corporation (DEG), alongside the Central American Bank for Economic Integration (CABEI). Following a consultation period, the dam was registered as a Clean Development Mechanism (CDM) project in 2011.

When construction began in 2011, access to the site was restricted by Ngäbe protesters (Sogandares, 2011). This set in motion a protest movement that would last over 7 years, with tactics ranging from direct action on the ground to petitioning German and Dutch embassies (Watts, Brannum, & Ruff, 2014). Following sustained pressure and social mobilization in the form of marches, preventing access to the site, and blockading the Pan-American Highway, the Ngäbe gained international attention and support (Watts et al., 2014). This resulted in James Anaya, the UN Special Rapporteur on Indigenous Peoples, visiting to investigate the situation in 2014 (UN Special Rapporteur, 2014). He ruled that the dam should only have been constructed following the prior agreement of the indigenous communities (Anaya, 2014). His decision influenced the Panamanian National Environmental Authority's ruling to suspend the dam due to an improper EIA in 2015, a direct result of the social mobilization that encouraged his visit. However, this suspension was later overturned

by the Panama Supreme Court (Hofbauer & Mayrhofer, 2016, p. 19). Thereafter, the movement continued and following international scrutiny, the project was de-registered from the CDM in 2016. Despite this, the dam has reached completion, forcibly evicting the affected communities.

3.3.1 | Political opportunity structures

The democratic political system of Panama enabled the movement to challenge the dam in the judicial sphere (AIDA, 2012). This was despite several amendments to domestic environmental law that removed the need for participation from indigenous communities (Runk, 2012: p.28). Further, the government engaged in a number of dialogues over a sustained period with the movement, these took place with three separately elected governing parties—Oswaldo Jordan of the Panamanian NGO Alianza para la Conservación y el Desarrollo (ACD) noted that this demonstrated a "political consensus against indigenous people at the highest level."¹²

The dam was funded by Western financing agencies (Hofbauer & Mayrhofer, 2016). The promise of funding made challenging the dam through the IACHR within the time constraints of its construction almost impossible. The movement was free to form transnational alliances and discuss the dam with media sources. This resulted in an international campaign that attempted to force compliance with internationally accepted human rights standards.

3.3.2 | Actor constellations

Within the opposition, there were several indigenous resistance groups with various leaders but the Movimiento 10 de Abril (M-10) was the most important actor. They had experience in defeating previous dams and their leader, Manolo Miranda, lived within the floodplain alongside his family. He was determined to fight by any means, and the tactics of the M-10 often conflicted with the diplomatic efforts of the Ngäbe General Cacica Silvia Carrera (Kennedy, 2016).

Cacica Carrera was crucial in representing the community at the negotiating table and following the M-10's successful blockade of the construction site, she was invited to engage in talks with the government in 2011 culminating in the San Felix Agreement (DEG, 2015). This accord contained a government promise to prohibit mining within the comarca. However, ongoing projects were to continue, including Barro Blanco (DEG, 2015). This agreement was unacceptable to the M-10, who escalated their tactics by blocking the Pan-American Highway in 2012. In response, the Panamanian government authorized the use of teargas and birdshot; resulting in allegations of police brutality and the death of one indigenous protester (Watts et al., 2014). These violent and well-publicized events pressured the government into further negotiations with the Cacica, mediated by the Catholic Church (DEG, 2015). This resulted in

¹¹Interview member of Xingu Vivo Para Sempre based in Belém.

¹²Interview Oswaldo Jordan, ACD

changes to Law 11 of the mining code that would prohibit mining within the comarca and stipulated that all future projects were subject to the approval of Ngäbe-Buglé regional congresses (Cortez, 2012; DEG, 2015). The combination of the Cacica's willingness to negotiate and the M-10's direct action and resistance resulted in significant amendments to national law that would protect the comarca in the future. This is a notable achievement; however, the M-10 refused to accept the continuation of Barro Blanco. Thereafter, the movement was divided, with some accepting the concessions made by Carrera and others siding with the M-10 (Cansari & Gausset, 2013).

The M-10 had support throughout the comarca, particularly by adherents of the Mama Tata religion. Osvaldo Jordan explained: "Flooding the sacred Kiad site was going against the Mama Tata, it's very important that the dam will flood this region. There was a lot of support from other believers."¹³

They were also effective in network-building outside the indigenous community, gaining support from TANs, including AIDA and International Rivers. These organizations linked up with domestic CSOs, such as the ACD and the Centro de Incidencia Ambiental. They were crucial in supporting judicial efforts, whereas international CSOs, such as Both Ends, raised a complaint against the financiers. The movement also allied with social and environmental organizations who were campaigning for an end to mining and to protect water flows worldwide (Rivera, 2016).

On the side supporting the dam, the financiers FMO, DEG, and CABEL were the dominant force pushing the project onwards. They had committed funding and refused to consider cancelling. They worked with GENISA to argue that the dam was beneficial to the affected communities (Hofbauer & Mayrhofer, 2016). Further, they formed a close alliance and were difficult to challenge, particularly as they had the support of the government.

3.3.3 | Dominant frames

One of the key frames used by the proponents of Barro Blanco is that dams provide vital clean energy for Panama's growing demands (Gordon, 2010). They have become a symbol of green development in Panama, both tackling climate change and increasing electricity production, as well as creating investment opportunities and economic growth (Campbell, 2014). Panama was one of the first states to ratify the Paris Agreement (2015) and this commitment to a sustainable future played a key role in governmental decisions.

Despite the government's commitment to green energy, the crucial factor in their support for hydropower projects is economic growth and investment. They frame Barro Blanco as an opportunity that is integral to the modernization of the indigenous communities who have been broadly portrayed as "backwards" (Mayhew et al., 2010, p. 9). Therefore, dams are framed as essential in their progression towards a modern way of life.

Opponents to the project frame the protest movement as an attempt to preserve Panama's traditions. They have often pointed out that the Ngäbe were in Panama before the arrival of the Spanish (Rosario, 2011). This argument can be aligned with carbon colonialism, where foreign investment results in the destruction of indigenous territories (Newell & Paterson, 2010). However, the indigenous opposition were predominantly concerned with the preservation of their traditional life; they were fighting to protect their homes, religion, and heritage.

4 | COMPARATIVE ANALYSIS AND DISCUSSION

There are a few *commonalities* that can be observed in all three cases. The vision behind these large-scale projects is to foster neoliberal development with a focus on economic growth. More precisely, we find two major frames used in relation to dams. The first is *clean energy and development*, *green economy* or *green growth*. Here, state actors align their discourse with the global goal of reducing greenhouse gas emissions, whereas at the same time, fostering economic growth as a national priority. "Green" is synonymously used as low-carbon, whereas all dam endeavors had serious environmental implications and led to the disruption of delicate ecosystems. In all of our cases, development is understood as *modernization*, a second dominant frame often used to justify adverse effects on indigenous communities and the destruction of their traditional livelihoods. Dam opposing movements have introduced counter-frames, including inequality and injustice, often relating to the unfair distribution of material benefits but also to lacking procedural justice mechanisms, including access to information, transparency, participation in decision-making, and remedies.

A number of key differences between Gibe III, Belo Monte, and Barro Blanco can be observed in the POS. Due to the restrictive political environment in Ethiopia, any activism or mobilization against Gibe III was blocked (FHI, 2017). This was not the case in either Brazil or Panama.

Another interesting difference with regard to POS concerns the involvement of international donors. In both Brazil and Ethiopia, the WB was involved in the beginning but later withdrew its support in view of anticipated adverse effects of the dam project. While Brazil ultimately managed to finance the project mostly on its own, Ethiopia sought support from Chinese investors. Barro Blanco in Panama was the only example of involvement of Western financing agencies, including the Dutch FMO and the German DEG, alongside the Central American Bank for Economic Integration—and this had an impact on social mobilization, in particular the renegotiation of conditions for affected population groups.

In Brazil and Panama, a considerable share of mobilization was carried out in the judicial sphere and in lawsuits, which were temporarily successful in stopping dam construction. Both countries are also embedded in a system of supranational courts. However, the results were surprisingly unsuccessful: Brazil simply rejected the

¹³Interview, Osvaldo Jordan, ACD

TABLE 1 Comparative analysis of Gibe III, Belo Monte, and Barro Blanco

	Gibe III	Belo Monte	Barro Blanco
Commonalities			
Development Vision	Neoliberal development with a focus on economic growth Brazil: neo-developmentalism in parallel with neoliberalism		
Dominant Frames	Green growth, modernization, and progress		
Counter-Frames	Inequality and injustice		
Affected Population Groups	Indigenous peoples (Brazil: non-indigenous peasants)		
Differences			
Political System	Not free	Free	Free
Dam-Funding	Government and private investments	Government and state-owned bank	Government and international/regional development banks
Institutionalization of Social Movement	No	Yes, but later fragmented	Yes
Alliance Building	No	Yes	Yes
Judicial Activism	No	Yes	Yes
Impact of social mobilization	None	Low (temporary suspensions)	Re-negotiation of conditions

ruling, whereas Panama's Supreme Court ruled in favor of a continuation of dam construction before a decision by the IACHR was made.

Actor constellations reveal more differences between the three cases. In the Ethiopian case, we can see how local CSOs offer services to the affected population but there is no transnational alliance-building. In Panama, we could observe a highly institutionalized domestic social movement that reached out to international CSOs and built strong transnational alliances. The movement opposing Belo Monte in Brazil was well institutionalized at times but later became fragmented. Transnational alliance-building in this case was also strong but could not be upheld. We have also observed heterogeneity within indigenous groups, mainly in the Brazilian case, regarding goal prioritization.

Table 1 summarizes the case comparison.

In all three cases, social mobilization could not stop the dams from being built but had a varying impact on dam-building. When explaining this outcome across our cases, several factors have to be considered.

For Ethiopia, we can observe that the authoritarian regime simply did not allow for any political mobilization against the dam project in order to raise awareness of the negative impacts or build transnational alliances.

Although this adverse POS can go a long way to explain the failures of social movement mobilization in Ethiopia, it will not suffice for Panama and Brazil. In both Latin American cases, social mobilization was not repressed by the state, and transnational activism was possible. Here, findings concerning the actor constellations and the framing practices become relevant: One decisive factor, which weakened the mobilization and affected its impact on politics in both Panama and Brazil, was friction within the movements. Although in the Brazilian case, this was also due to bonds of loyalty between the ruling Workers' Party and several social movement organizations, the

commonality between the two cases is linked to the time dimension of contentious politics around infrastructure projects; when the objects of contention are hydroelectric dams, there is a critical point at which the physical conditions of a place are altered so thoroughly that it becomes impossible to reconstruct the status quo ante. In Brazil and Panama, when the point of no return was reached, friction within the movements increased, namely between those who upheld principled opposition and those who argued in favor of negotiating compensations.

In spite of these similarities, there remains a striking difference between the two. The social movements against the dam in Panama did reach some meaningful alterations of conditions, which was not the case in Brazil. Here, the involvement of external Western donors in Panama as opposed to the financial autonomy in Brazil plays an important role; because such actors are nominally committed to international norms on dam-building and potentially vulnerable to public naming and shaming, they tend to be more susceptible to transnational mobilization than other actors.

5 | CONCLUSION

Our comparative analysis of three cases has revealed that several factors can hamper the impact of such mobilizations; apart from the restrictions imposed by an authoritarian regime such as the Ethiopian one, other factors are highly relevant.

One of them is the involvement of external actors and the respective degree of financial independence of the state of the project. Here, our findings point to what can be called a paradox of emancipation. The emancipation from a long-standing dependence on international donors, such as the WB, resulted in a loss of leverage for TANs because transnational advocacy could not build on

international (non-binding) norms, like the WB's environmental and social safeguard policies, and this indirectly favored the implementation of highly problematic infrastructure projects.

Another relevant finding concerns the power of frames such as "green development," by which the dam coalitions can support and enforce their projects in line with national and global goals, suggesting that the respective projects can solve the dilemma of economic growth and environmental sustainability.

Our analysis also reveals a certain temporal and physical particularity of dams and other large infrastructure projects: Once the huge walls of a dam are built, once a river is deviated or a territory flooded, "un-building" these works is extremely costly and will not undo the damage. From the perspective of the pro-dam coalitions, the suspension or termination of such a project would result in massive sunk costs and a loss of reputation. For the counter-movements, in turn, accepting the projects and negotiating better conditions and compensations becomes a reasonable impact strategy in line with an ethics of responsibility. The ensuing friction between different strands of the movements leads to further limitations of their impact.

These preliminary findings would have to be complemented by more empirical studies. In a context in which both authoritarianism and the urgency of finding answers to climate change are on the rise, the possibilities of contesting interventions into the lives of those who are most vulnerable to and least responsible for these developments remain an important justice issue.

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