Enforcing Citizen Participation Through Litigation: Analyzing the Outcomes of Anti-Dam Movements in Brazil and Chile

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ABSTRACT

In environmental politics, social movements play a crucial role, promoting participatory rights and confronting injustice, inequality, and the interests of the powerful. This article examines an underexplored topic in the literature on social movements, especially in Latin America: the use of litigation to force decisionmakers to comply with participatory formats, specifically in the course of opposition to hydroelectric dams. These projects often are destructive to the local environment and communities. This study examines four cases of environmental litigation that halted dam construction in Brazil and Chile, singling out causal pathways for successful collective action. It focuses on two dimensions of movement success: the implementation of participatory formats and the resulting cancellation of dam projects. In line with the joint effect model of social movement theory, the crosscase comparison of legal disputes shows that pursuing legal strategies in parallel to broad social mobilization and the support of institutional allies, can lead to successful outcomes.

Keywords: Litigation, participatory democracy, Brazil, Chile, hydroelectric dams, environmental policy, social movement outcomes

Latin American governments promote hydroelectric plants as a sustainable energy source to fulfill growing national energy needs (Bréthaut and Schweizer 2018). However, these projects often provoke severe social and environmental impacts (Fearnside 2016; Tilt et al. 2009), leading to resistance from local communities and environmental advocacy groups (Shah et al. 2019; Silva 2016). This opposition represents much more than an outcry against the social and ecological

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impacts of dams. It is also a critique of the deep inequalities that shape developmentoriented politics in the region.

Hochstetler and Tranjan (2016) have noted the problematic fit of development frameworks into state policies that involve citizen consultation and contention, as citizen inclusion in decisionmaking is sometimes seen as a hindrance to national development interests. In addition to mining, gas, and oil projects, conflicts over dams have become one of the most salient fields of socioenvironmental conflicts in Latin America (EJOLT 2022). Besides the physical consequences of dams, opposition to them is generally fueled by the exclusion of affected communities in decision making processes in the course of environmental licensing procedures that require citizen participation. Such participation is regularly neglected in practice (Fearnside 2016). Consequently, communities often are not considered in the design of dams that affect them, and construction, resettlement, and compensation plans are frequently developed without their participation (Égré and Senécal 2003). In the course of such conflicts, citizens resort to a variety of strategies that can enforce participatory regulations and cancel dam projects ex-post.

Previous studies of environmental governance and development in Latin America often have focused on the shortcomings of weak institutions and regulatory frameworks, and as a consequence, the lack of environmentally and socially sustainable decisionmaking (Bréthaut and Schweizer 2018; Silva 2012). In the field, little attention has been paid to the mechanisms that ensure citizen participation in environmental policy processes, such as environmental impact assessments (EIAs); and even less is known about the use of litigation to force decisionmakers to comply with participatory formats, such as consultations (see Jaskoski 2020). Several authors examining participatory democracy in Latin America have also diagnosed an implementation gap, meaning that despite the formal provision of channels for citizen participation in decisionmaking, substantial citizen influence is much more difficult to obtain in practice (Wright and Tomaselli 2019; Lima 2019).

This article expands this literature by examining the potential of legal strategies for closing the implementation gap, particularly by arguing that litigation, combined with social mobilization and institutional allyship, is a powerful instrument to strengthen citizen input in environmental decsions. In investigating how anti-dam movements pursue legal remedies to prevent the construction of dams, this study also sheds light on the conditions that can lead to successful dam prevention and also strengthen participatory processes in environmental governance in the longer term.

Recent literature has shown that litigation against project approval in the course of EIAs has become a tool citizens frequently use against the installation of dams (e.g., Barandiarán 2020). This study taps into this research and expands it by looking more deeply into the black box of how communities achieve success in opposing anti-dam projects by resorting to a combination of legal means and protest strategies that result in cancellation. Success is observed in two dimensions. The first is whether the communities' goals were realized; that is, if they could stop dam projects. The

second is whether participatory formats could be enforced further and implemented as a policy routine ex-post.

This study uses a comparative case study approach to examine four successful cases of environmental ligation: the Tijuco Alto dam and the São Luiz do Tapajós dam (Brazil) and the Mediterráneo dam and the Doña Alicia project in Chile. Drawing on lessons from these cases, the analysis aims to answer the following questions: What causal conditions lead to successful citizen opposition against dams? And how can litigation in particular address gaps of citizen inclusion in decisionmaking?

The article is organized as follows. The next section discusses the previous literature on environmental licensing in Latin America and links the research question to the theoretical discussion about the political consequences of social movements. By this we build our own conceptual approach to litigation used as a strategy of citizen movements to reverse dam approvals and enforce authorities' adherence to participatory formats. The methods section is followed by the results of the within-case analyses. A comparative discussion synthesizes the empirical findings across the four cases. The concluding section highlights this study's contribution to the literature and suggests areas for further research.

Participation in Environmental Governance in Latin America

Background to the Research

Decisions on the construction of dams are commonly made in the course of environmental licensing, including EIAs of proposed projects. The trend of expanding citizen participation in EIAs has been happening in Latin America since the 1990s, providing for citizen consultation; for instance, in the form of public forums or the submission of written observations by local communities and the consideration of citizen input as a requirement for project approval. However, even if the involvement of affected communities in decisionmaking is encoded in legislation, licensing is often accompanied by open conflict, as the requirement to consult citizens is frequently ignored in practice (de Castro et al. 2016; Walter and Urkidi 2016).

While the details of licensing procedures for infrastructure projects vary from country to country, they display several common features across the Latin American region (Pereira et al. 2019), including the submission of an impact assessment study (IAS) by project developers. Specialized consultants paid by the developers often conduct these studies. To achieve project approval, proponents often tend to minimize potential risks and requirements for impact mitigation. Frequent tactics also include defining the project's geographic impact area narrowly; for instance, by considering only the immediate vicinity of the project and ignoring indirect social impacts, including denying the presence of local communities (Merino 2018; O'Faircheallaigh 2017).

Even when participation occurs and residents' knowledge and observations are channeled into EIA processes, there is no guarantee that decisionmakers will consider them. In this context, the imbalance of power between communities and companies is glaring. The latter can usually mobilize extensive political, financial, and technical resources, which receive consideration by decisionmaking authorities, due to the highly technical nature of licensing processes. Another challenge is that public consultations are usually funded by project proponents, allowing them substantial control over the extent and form of citizen participation in EIAs (O'Faircheallaigh 2017).

A related issue that underpins the power relations between affected communities and proponents involves the underlying values that buttress environmental licensing. The dominant narratives of infrastructure development in Latin America emphasize its strategic importance as a source of employment and economic growth, devalue nature, and equate development with national interest, making it even more difficult to oppose the approval of respective projects, such as dams, and resulting in negative project impacts being generally ignored (Silva 2016; Hochstetler and Keck 2007). Litigation is seen as an option to reverse dam approvals in such contexts. The underlying mechanisms leading to the success of such a strategy can be borrowed from social movement research.

Conceptual Framework

At the level of the citizen movement outcome, our dependent variable, success, is observed in two dimensions. The first is whether the communities' goals were realized; that is, if they could stop dam projects. The institutionalization of participatory formats and their implementation as a policy routine can be considered a second dimension of success. This can be valid because, as our case studies will show, unlawful decisions are canceled ex-post when they are not built on the required participatory formats. It is plausible that the reversal of such decisions incentivizes authorities and project proponents to adhere to participatory formats from the beginning, which contributes to the strengthening of the new institutional frameworks in the future.

From a broader perspective, sociological institutionalism considers such a longerterm implementation of rules as a process of socialization and learning by different actors, including political authorities, based on policy routines (Powell and DiMaggio 1991). The cancellation of unlawful decisions by the courts as a consequence of citizen litigation can have such an effect.

Litigation, in the context of this study, refers to judicial strategies enforcing constitutional and human rights via lawsuits and formal EIA objections (Hess and Satcher 2019). After the approval of dams without their consent, communities have used civil law to hold companies and government agencies accountable and to force them to adhere to participatory formats, on the one hand, and to gain time to reanalyze IASs on the other hand (Jaskoski 2014; Roa-García and Brown 2017). Often, legal objections against EIAs advance in the courts because developers did not comply with required citizen participation and environmental standards.

To look for pathways and conditions that explain how success can be achieved through litigation, we draw on social movement research, which suggests that citizen movements have, at best, a moderate impact on public policy (Giugni 2007). Applied to our research context, successful opposition to dams in Latin America indeed is a rare phenomenon, although as Hochstetler and Tranjan (2016) note, most literature deals with the cases in which movements could have some impact in either altering or delaying projects (see also McAdam and Boudet 2012). Thus, state and societal actors have some ability to shift the character of project impacts or to insist on compensation for impacts, but they have little power to stop projects altogether.

This article will show that when and how those rare outcomes occur is most importantly affected by the ability of state and social actors to jointly challenge a project. To explain when this can happen, we stress the combined effects of citizen movements; political opportunity structures, such as political allies; and public opinion, as well as other contextual factors. The study builds on hypotheses and results from previous research, but with a new focus on the role of litigation.

The political mediation model (Amenta et al. 2010) points to the conditional effects of political opportunity structures and social movements. We conceptualize the option for legal challenges against dam proposals as an important characteristic of the political-legal opportunity structure in which citizen movements act (see also Boutcher and McCammon 2018; Michael 2020). We focus on litigation as the main condition for citizens' success in resisting dam construction.

Several suggestions have been made about how to incorporate contextual factors of social movement success into multicausal arguments and to draw out the involved pathways (Amenta et al. 2010). In particular, the importance of powerful political allies and a favorable public opinion have been stressed as crucial external resources that, when they accompany citizen mobilization, facilitate their impact on public policy (Giugni 2007). From this research strand, Giugni's joint effect model of social movement outcomes (2007) is most suitable as an explanatory tool for our research endeavor.

Giugni distinguishes between three variants of the model, depending on whether political allies, public opinion, or both factors are necessary for a movement to have policy impact. Giugni argues that both political allies and public opinion help movemts to succeed. To force decisionmakers to engage in substantial policy reform, it is necessary to have the joint and simultaneous presence of a strong social movement and either a major political ally in the institutional arena or a favorable public opinion, or both. In this respect, the impact of protest on policy is greatest when both political allies and public opinion form a favorable environment for policy change to occur (Giugni 2007). In this study, the model supports the notion that opposition to dam projects by legal means is indeed challenging for citizens alone. But the possibility that a favorable public opinion and allies in the bureaucracy can, in principle, be present in Brazil and Chile leads us to assume that these can be the relevant explanatory factors for our case studies.

Methods

The empirical analysis rests on within-case analyses and a subsequent cross-case comparison of four decisionmaking processes on dams in Brazil and Chile, where consecutive government administrations have favored major hydro energy projects. Therefore, both the Brazilian and Chilean contexts can be considered least likely settings for successful citizen opposition against dams.

The study focuses on two dimensions of movement success: the implementation of participatory formats and the cancellation of dam projects. Adopting these two characteristics as our key dependent variable to single out causal pathways to a still rare phenomenon (Della Porta 2012; Gerring 2006) offers insights that could be transferred to other—including less challenging—settings (George and Bennett 2005). We draw on within-case analyses of four cases: the Tijuco Alto and the São Luiz do Tapajós dams in Brazil, and the disputes about the dams of Mediterráneo and Doña Alicia in Chile. Evidence was collected from different databases on environmental conflicts: EJAtlas, Mapa de Conflitos (Brazil), and SEA (Chile); from official sources; press releases, for instance by NGOs, and national EIA documentation; minutes of public hearings; and court statements. The in-depth analysis and triangulation of the different data sources (McAdam and Boudet 2012; McAdam 2020) allowed us to follow the decisionmaking processes over the years, combining different perspectives and insider and outsider angles and balancing out potential biases that single sources may have. Greater accuracy and detail of the causal paths to movement success could thereby be achieved (Bosi 2016).

Furthermore, the subsequent cross-case comparison offers the chance to explore relevant pathways in EIA-related litigation with more external validity because of similarities in the licensing rules and participatory formats of both countries. For instance, both Brazil and Chile codified participatory innovations in environmental governance and ratified, among other agreements, the International Labour Organisation's Indigenous and Tribal Peoples Convention, 1989 (ILO No. 169), which requires consulting Indigenous peoples whenever legislative or administrative measures may affect them (Article 6).

Analysis

Environmental Governance in Chile and Brazil

In Chile, environmental governance has long been shaped by an economic orthodoxy inimical to sustainability, as a legacy of the autocratic era (Hochstetler 2012). From the 1990s on, the democratically elected Concertación government took steps toward creating a more integrated institutional environmental framework. In 1990, the national environmental agency, the Comisión Nacional del Medio Ambiente (CONAMA), was established, and in 1994, Congress enacted a new legal framework for environmental governance, Ley No. 19.300. Based on this law,

CONAMA gained responsibilities, having a central directorate and decentralized regional commissions.

Among its tasks, CONAMA oversaw citizen participation in EIAs, environmental quality standards, project liability for environmental damages, and the EIA system. The 1994 law mandated citizen participation in formulating environmental policy, particularly in the course of EIAs, based on either public consultations or submission of citizen observations (observaciones). More recently, institutional renovations were enacted because of pressure from civil society following several environmental conflicts (Delamaza et al. 2018). During President Michelle Bachelet's first term, Chile initiated a comprehensive overhaul of environmental institutions. The result was the 2010 legislation that amends the 1994 Environmental Law. The new law, (No. 20.417), established a Ministry of the Environment and a new Environmental Evaluation Service (SEA), with the task of ensuring participation in IASs and Environmental Declarations (EIDs). Since 2010, SEA has been assigned to explicitly consider the social, economic, cultural, and geographic characteristics of communities affected by projects and to make participation accessible to vulnerable, geographically isolated, and Indigenous communities. Furthermore, SEA's decisions can be subject to appeal (Baver 2021).

Despite being home to 12 percent of the world's fresh water and 12.5 percent of the world's forests (FAO 2020), Brazil does not have precise legislation on environmental licensing. For a long time, environmental policy occupied a marginal place in national policies (Câmara 2013). In 1981, a legal and institutional framework was created to face outstanding environmental challenges with the establishment of the National Environmental Policy Framework (Law No. 6938/ 1981). It replaced the highly fragmented environmental legislation of the 1970s, which reflected the extractivist approach of the military dictatorship. This legislation imposed the requirement of environmental licensing at the level of national authorities for activities that use natural resources or are potentially polluting. The law marked the beginning of the expansion of the Brazilian state's capacity to enforce environmental regulations, in particular with the creation of the Conselho Nacional do Meio Ambiente (National Environment Council, CONAMA). Similar to its Chilean counterpart, the Brazilian CONAMA's responsibilities include the formulation and oversight of environmental standards (Article 8).

In Brazil, citizen participation in environmental licensing includes public hearings (audiências públicas, Ordinance No. 419/2011). When IASs are submitted, they are not discussed with the affected communities because of industrial confidentiality. A separate document called Report of Impacts on the Environment (Relatório de Impacto Ambiental, RIMA) is published in simple language, in what is supposed to be the transparent version of the IAS. The IAS/RIMA must present all potential environmental and social impacts of the enterprise, as well as mitigating measures. These documents are mandatory for large projects that affect Indigenous or Quilombola lands. However, citizens have a say on RIMAs only at an advanced stage of licensing, during the public hearing.

According to CONAMA's Resolution No. 09/1987, public hearings in the licensing process serve "to expose to interested parties the content of the product under analysis [EIA] and its referred RIMA, clarifying doubts and collecting criticisms and suggestions from those present" (Article 1). The hearings are the only formal opportunity for public participation in the licensing process and merely consultative. However, although not binding, questions, suggestions, and critiques at a hearing can be taken into account in the final evaluation by the environmental agencies' technicians. Errors and inconsistencies in IASs/RIMAs are often what support the judicialization of dam projects, as the case studies will show.

Despite provisions for citizen input, lack of transparency and neglect of participation in practice are the main challenges for democratic environmental governance in Chile (Rodríguez-Luna et al. 2021), as well as in Brazil (Zhouri 2008). Consequently, project opponents have increasingly used lawsuits, especially against EIAs (Loomis et al. 2021), to halt dam projects. The provisions open to citizens for legal action differ considerably in Chile and Brazil.

Environmental Legal Action Open to Citizens

In Chile, the 2010 reforms also established Environmental Courts (Law 20.600, passed by Congress in 2012). Three Environmental Courts, meant to cover all of Chile, are located in Antofagasta, Santiago, and Valdivia. In addition to claims against the denial of access to participation in EIAs, they hear cases on compensation for environmental damage, challenges to SEA rulings, and complaints against administrative decisions that contradict environmental regulations (Muñoz Gajardo 2014).

While the creation of Environmental Courts was an important step toward wider access to justice, the OECD (2016, 28) still noted that in reality, "[in Chile] the high cost of legal counsel often puts this access out of reach of NGOs and citizens." This is very likely the reason that the most common legal action communities use against EIAs is judicial review (recurso de protección, RP). RPs are court actions that aim to protect citizens from arbitrary acts or omissions by public authorities (Barandiarán and Rubiano-Galvis 2019). RPs' popularity rests on accessibility and affordability: they are filed directly with the local Corte de Apelación, the highest tribunal in each province, and Chile's Supreme Court can hear the appeals. Thus, whereas the Environmental Courts oversee the legality of decisions in the field of environmental policy, RPs are an instrument to safeguard the constitutional rights of citizens in general.

In Brazil, in addition to Law No. 6938/1981, the Federal Constitution of 1988 introduced a chapter on the environment, contemplating the decentralization of environmental policy and a more level structuring of environmental institutions with the creation of federal agencies and municipal environmental councils (Moura 2016). Subsequently, Law No. 7.735/1989 created the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA), which is responsible for carrying out environmental licensing. Together, these pieces of

environmental legislation are vague, and have resulted in overlapping responsibilities of federal, state, and municipal rules. This creates confusion and delays, and it is not uncommon that licensing procedures end up being judicialized. When this is the case, the *Ministério Público* (MP, Public Ministry or Public Prosecutor's Officer) gets involved via Public Civil Actions, which can be triggered by citizens' complaints.

The MP operates independently of the three branches of government (legislature, executive, and judiciary) at the federal (Ministério Público da União) and state (Ministério Público Estadual) level. Over the years, it has become a relevant actor in environmental protection, functioning as an institution for "prosectorial enforcement," which is different from the administrative enforcement carried out by environmental agencies (McAllister 2008, 57). The MP has the power to initiate its own investigations, determine the need for further environmental studies, and bring legal charges against any entity it believes is violating collective interests (Hochstetler and Tranjan 2016).

Although relevant participatory channels for environmental licensing and more accessible instruments for legal oversight have been created, in Brazil as well as in Chile, citizen mobilization around environmental justice has become at the same time formalized but challenging, encompassing both contentious politics, such as demonstrations and marches, and the use of litigation (Barandiarán 2020).

RESULTS OF WITHIN-CASE ANALYSES

Hydroelectric dams generate about 63 percent of Brazil's (ANEEL 2020) and 27 percent of Chile's electricity (Generadoras 2020) and are therefore crucial energy sources in both countries. This great dependence on hydropower emerged from national development models based on the idea that economic development would naturally come from investments in large-scale infrastructure, such as highways and hydroelectric plants.

Brazil's recent era of neodevelopmentalism was inaugurated with Luiz Inácio Lula da Silva's government (Workers' Party, PT), which benefited from a commodity boom and promoted social welfare programs (Bresser-Pereira 2016). Success in social policies notwithstanding, Brazil registered a dramatic increase in socioecological conflicts provoked by infrastructure projects, particularly affecting Indigenous peoples, Quilombolas, and poor rural communities (Laschefski and Zhouri 2019; Hochstetler and Keck 2007).

In Chile, the Concertación administration also started to promote hydropower for national development (Latta and Aguayo 2012; Leiva 2019). Contrary to Brazil's approach during the PT administration, hydropower infrastructure development has mainly been aimed not at generating revenues for financing social policies but at supplying the mining industry in northern Chile, which is an important economic pillar of the country (Furnaro 2020).

Against this background, both Brazil and Chile can be considered least likely contexts for successful citizen opposition against dams. Analyses of effective citizen mobilization and environmental litigation in these contexts offer significant insights that could be transferred to less challenging settings. The within-case

analyses that follow present an overview of the proposed projects, relevant participatory formats, and communities' strategies for challenging their exclusion from environmental licensing.

Mediterráneo Dam

In spite of an ever-growing national anti-dam movement, different Chilean governments have continued to prioritize hydropower infrastructure over sustainability concerns (Silva 2016). Nevertheless, the Mediterráneo run-of-river dam, planned by the Chilean company Mediterráneo at the Manso River in the southern Araucanía region, gives an example of how environmental authorities can be pressured to refrain from such projects.

Mediterráneo foresaw an investment of US\$400 million. Located in the Cochamó area, the dam should generate 210 MW and involve the construction of a 60 km transmission line with 150-meter-high towers through a UNESCO Biosphere Reserve (EJOLT 2022).

In 2014, the IAS of the dam was approved by the regional SEA office without the required Indigenous consultation and without taking into account risks to several endemic endangered species (SEA 2020). Shortly after obtaining the environmental license, the company started cutting down two hundred hectares of native rainforest for the energy distribution infrastructure. This constituted an enormous fracture in the dense network of forests in the region. From early on, the licensing process had led to opposition from Indigenous Mapuche and other local communities. They criticized the process for irregularities, including influence peddling by then president Sebastián Piñera (OLCA 2014). In the end, the revocation of the license in 2017 marked a milestone of success for the communities, who hadtaken a firm stand in various legal processes.

Altogether, the conflict had been going on for almost a decade. Spanish energy company Endesa holds the water rights to the Puelo River, of which the Manso is a tributary. The conflict became manifest with Endesa's purchase of the water rights in 2008. Communities were alerted and began mobilizing in 2012, when Mediterráneo started carrying out first inspections and data gathering on site. Since then, the three affected Indigenous communities, Domingo Cayun Panicheo and Huilimapu, repeatedly called for free water for the Manso River and a no to hydroelectric plants, organizing public rallies and demonstrations (Mapuexpress 2017).

The communities founded the movement Puelo Patagonia, whose slogan was *Puelo sin Torres* (Puelo without Towers), particularly opposing the transmission line (EJOLT 2022; WWF 2016). After the SEA granted the dam's environmental license in 2014, the movement's legal actions kept the construction of the dam on legal standby. In its IAS, the company did not consider the environmental impact of building the transmission line, which is why Chile's Environmental Superintendent paralyzed the project for a period of 14 months, after the communities filed a complaint in 2015 (Puelo Patagonia 2017). The communities

also decried the lack of transparency in the citizen consultation process: in spite of having carried out a public consultation (besides the Indigenous prior consultation, which was obligatory but neglected), the respective *observaciones* by the communities had not been considered in the IAS at all.

The movement's appeals in a local first instance were analyzed by higher courts, eventually reaching Chile's Supreme Court. After the first appeal was judged unfavorable, the Mapuche community Domingo Cayun Panicheo filed a complaint against the project in the Environmental Court of Valdivia for failing to take into account its *observaciones*. The community claimed that the Committee of Ministers, which signs EIA approvals, had ignored the violation of Indigenous rights. In November 2016, the Environmental Court annulled the dam's license (Mapuexpress 2017). In its ruling, it highlighted the weak characterization of the biotic environment, the lack of concrete measures in the IAS for the conservation of species affected by the location of the hydroelectric plant, and the failure to consult Indigenous people (WWF 2016). The ruling thereby responded to citizens complaints regarding the IAS methodology and the lack of Indigenous participation.

In December 2017, the Supreme Court confirmed the revocation of the environmental license by the Environmental Court against appeals by the Mediterráneo company and SEA. With three votes in favor and one against, the Supreme Court rejected the appeals, definitely cancelling the approval of the project's IAS for presenting flaws in the anthropological study, which had denied the requirement of a consultation with the affected Indigenous communities (Corte Suprema de Chile 2017).

Hidroeléctrica Doña Alicia

In the case of the second dam, local community opposition also led to the project's suspension and an ex-post implementation of citizen participation, as their objections against the plant were considered in the end. The Hidroeléctrica Doña Alicia would have been installed in the Piedra Cortada sector, also located in the Araucanía region, with a planned intake reservoir of 1.3 hectares, being 2.9 km long and covering an estimated area of 12.9 hectares. The amount of investment would be US\$20 million. In April 2015, the regional SEA office started evaluating the dam's IAS and approved it in March 2016 (SEA 2018).

Early on, local communities strongly rejected the project. If the plant had been built, it would have meant the diversion of hundreds of millions of liters of water every day in an area where communities have scarce electricity and water supply. Moreover, ecosystems would have been damaged and droughts potentially aggravated. The dam would have also affected Mapuche culture because in the area where it was to be installed, their *machis* (healers) obtain medicinal herbs (EJOLT 2022).

In December 2016, the Environmental Court of Valdivia concluded that the anthropological study of the dam was methodologically precarious, and therefore "there [was] not enough evidence to rule out effects on the communities" (Tercer Tribunal Ambiental 2016). The Indigenous Benancio Huenchupan community,

alleging that their objections formulated in the course of the community's *observaciones* were not duly considered in the EIA, submitted the complaint that led to the ruling. The Supreme Court confirmed the Environmental Court's ruling in June 2018, stating that both a precarious methodology of the project's anthropological inspections and a lack of substantiation of the assessment by the National Indigenous Development Corporation (CONADI) led to ignoring the significant adverse effects of the dam on the Indigenous communities in the sector (As in the Mediterráneo case, after counterlitigation by SEA and the project proponent, Doña Alicia S.A., the highest Chilean court accepted the claim presented by the Mapuche community, and by four votes in favor and one against rejected appeals by SEA and the company against the Environmental Court's decision (Corte Suprema de Chile 2017).

Both Chilean cases illustrate a similar path to success that can be summarized as follows (see Figure 1). The communities started contesting dam projects from early on and held mobilization continuously high. However, protest action was not sufficient for cancellation; only after several legal appeals were the suspension of the projects and ex-post granting of the communities' participatory rights achieved. Hence, in both cases litigation proved to be a necessary condition.

Furthermore, in both cases, several characteristics of the context enabled success even against counterlitigation by the dam proponents. The cultural rights of Indigenous communities were violated, and at the same time, other prominent mobilizations against infrastructure installations were discussed among the Chilean public. The revocation of Doña Alicia, together with the abandonment of smaller predecessor projects in the same sector, as well as the rejection of the emblematic HidroAysén dam at the same time (Borgias and Braun 2017), were significant triumphs of the Chilean anti-dam movement (Puelo Patagonia 2017). Most notable about these triumphs is that they showed that within the Chilean system of environmental licensing, decisions could be reversed and disputed dam projects canceled (first dimension of our dependent variable). Moreover, referring to our second dimension, judicial complaints constituted important controls working toward democratization of environmental governance and fulfillment of the promise of citizen participation inherent in Chilean institutions (Broitman and Kreimer 2018; Schaeffer 2017).

Tijuco Alto Dam

Turning to Brazil, the Tijuco Alto dam was also halted by the efforts of a movement built up by communities and environmental groups, who were supported by the Federal Public Ministry (MPF). Tijuco Alto was one of four dams planned at the Ribeira de Iguape River, between the southern states of São Paulo and Paraná. Its construction would have displaced 585 families residing in 5 municipalities (CBA/CNEC 2005). The dam met opposition from Quilombolas, small-scale farmers, and traditional *ribeirinho* (riverside) communities that claimed that it would flood the Atlantic forest, causing environmental, social, and cultural damage to the

region. Following 28 years of resistance, with public hearings, contestation of IASs, and updates to the dam's proposal, the communities finally succeeded, and federal authorities decided to suspend the project in 2016, after a Public Civil Action orchestrated by the MPF and the MP of the state of São Paulo.

Tijuco Alto can be traced back to 1989, when a first attempt to obtain a license was made by the Brazilian Aluminium Company (CBA). The dam would have had a capacity of 144 MW, including a 56.5 km² reservoir. Demonstrations against the project were led by communities threatened by being expropriated and by supporting organizations, such as the PT, the Landless Workers' movement the Movimento dos Atingidos por Barragens (MAB), environmentalists, all organized under the banner of Movimento dos Ameaçados por Barragens do Vale do Ribeira (MOAB) (Américo and Dias 2019). CBA applied for environmental licensing in both the states of São Paulo and Paraná, since the Ribeira de Iguape River crosses both jurisdictions. The licenses were granted in June 1995 by São Paulo's Conselho Estadual do Meio Ambiente (State Council for the Environment) and in February 1995 by the Environmental Institute of Paraná (IBP) (Sousa 2014). Pressed by MOAB, the MPs in São Paulo and Paraná filed a Public Civil Action demanding that the license be annulled, arguing that legislation defines the licensing of interstate dams as part of the competence of the federal IBAMA (Mapa de conflitos 2014). Subsequently, the Third Federal Court canceled the license in October 1999. In the decision, its judge stressed IBAMA's competence for the process.

In 2003, CBA submitted a second license application to IBAMA, followed by the mandatory EIA process. The federal MP again found significant errors and omissions in the IAS, such as a lack of measures to protect the Atlantic forest and to preserve water quality and an underestimation of socioeconomic impacts (Jeronymo et al. 2012). In 2004, IBAMA allowed CBA to restart inspections for a new IAS for a third attempt of obtaining the license (IBAMA 2004). Public consultations took place in the communities of Registro, Eldorado, and Ribeira in São Paulo and Adrianópolis and the Cerro Azul community in Paraná in 2007 in a climate of protest. In addition, MOAB filed complaints with the MP contesting the information presented in the IAS. In the same year, after considering citizen complaints, the MP decided that the IAS should be redone again and should integrate more information about the whole river basin (Rougemont and Gómez 2011). In February 2008, a technical report by IBAMA ignored citizen observations and issued a favorable statement regarding Tijuco Alto's IAS. This generated protests, and seven hundred people occupied IBAMA's Superintendency in São Paulo. The protesters negotiated with IBAMA in April 2008 to take a final decision on the dam only after considering the observations that had been articulated by citizens in the previous public audiences (Zanchetta and Medeiros 2008).

The third attempt at a license remained under IBAMA's consideration for seven years. During this time, several actors mobilized to block the license approval. Among them, we can highlight Quilombolas, who organized for land demarcation in the

Ribeira region and demanded the fulfilment of ILO No. 169—which, according to national jurisprudence, mandates the obligation to carry out a prior consultation with those Quilombola communities (MOAB 2014). Furthermore, several environmental groups pressured IBAMA to carry out public audiences with the affected communities.

Supported by these diverse groups, in 2015 the MPF and the MP of the São Paulo State filed a Public Civil Action at the Federal Court of Justice to suspend the construction of the dam. The judges accepted the movement's claim that the IAS presented (again) several errors and omissions. So in November 2016, after nearly four decades of social protests and judicial actions, the court obliged IBAMA to reject the application for licensing the dam (IBAMA 2016a). In February 2018, the application process was fully closed (MPF 2018). However, despite this long battle, new proposals for smaller dams still threaten the Ribeira de Iguape River communities (Américo and Dias 2019).

São Luiz dos Tapajós Dam

Since the 1960s, Brazilian governments have prioritized hydroelectricity projects in the Amazon region to secure the country's energy supply (Pereira 2013). Recently built dams, such as Belo Monte and Santo Antônio, displaced traditional communities. Despite strong resistance, citizen opposition could not stop their construction. The same cannot be said for the Tapajós dam, where the Munduruku tribe, in coalition with environmental groups, stopped its realization via litigation.

The São Luiz dos Tapajós project (hereafter Tapajós) was planned on the Tapajós River in Brazil's northeastern Pará State. The dam would flood Indigenous land and conservation areas, and three Indigenous Munduruku villages would have to be fully removed. A key challenge for the elaboration of the IAS for Tapajós was the consideration of socioeconomic impacts, particularly those affecting Indigenous peoples and *ribeirinho* communities. Such impacts included the blocking of Indigenous land demarcation, loss of fish and other river resources, and the destruction of sacred sites (Fearnside 2015).

The Munduruku were at the forefront of opposition against the dam. Other Indigenous peoples, some of whom had already had their rights violated because of the construction of other dams, supported them. In addition to the Indigenous people and *ribeirinhos*, the opposition movement also included small-scale farmers, urban dwellers, and artisanal miners (Atkins 2018).

Composed of more than 15,000 people, the Munduruku are distributed across 105 villages. Since the 1980s, they have been organizing for land demarcation. Lands traditionally occupied by Indigenous peoples in Brazil are demarcated as federal property (Decree 1775). Although the demarcation report of Munduruku land was finished by FUNAI (National Indigenous Foundation) in 2013, the government chose not to recognize it because demarcation would make Tapajós unconstitutional (Loures 2018). The Brazilian Constitution prohibits the removal of Indigenous peoples from their lands, except in case of national security (Article

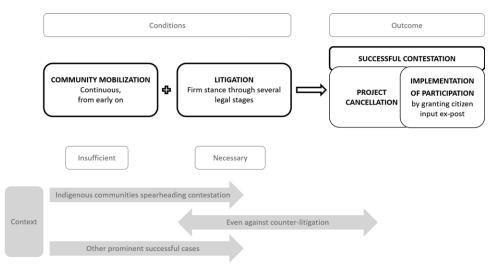
231.5). The IAS for Tapajós tried to circumvent the Constitution by referring to legislation created during the Brazilian military government, which allows public works on Indigenous territory in the interest of national development (Federal Law No. 6001/1973).

After the official announcement of the plans for the dam in 2008, the *Movimento Tapajós Vivo* (Tapajós Alive) was created, and it became a central actor for exchange of information among opponents and for demonstrations. Among other activities, the movement launched public statements denouncing the government's collusion with large corporations operating in the Amazon (Mapa de conflitos 2014). Tapajós Vivo met with FUNAI and Eletrobrás (the developer) to request that the inspections for the EIA stop. Nevertheless, studies went ahead. In 2012, the MPF gathered evidence from activists and filed a Public Civil Action asking for a preliminary injunction against IBAMA. The suit requested the suspension of the Tapajós licensing process and demanded complementary studies, as well as the consultation of Indigenous peoples and other cultural groups in the area (Loures 2018). The civil action was accepted by the Federal Court and validated by the Supreme Federal Court in April 2013. Up to this point, consultations had never happened.

In 2014, the Mundukuru self-demarcated their land in order to confront FUNAI's slowness in the process. In June of the same year, Eletrobrás submitted its IAS, but IBAMA rejected the study in 2015 due to information gaps, weak methodology, and therefore a lack of full consideration of the impacts of the dam (IBAMA 2016b); these included the lack of a comprehensive study of how much water levels would be lowered, the presence of mercury in river waters, and Indigenous land claims that had not yet been resolved. Eltrobrás did not respond to the inquiries and missed the deadline to submit complementary information, never asking for an extension. In August 2016, the project was "archived." Despite this victory, there were plans for other 42 hydroelectric projects in the Tapajós Basin, according to Brazil's Ten-Year Energy Expansion Plan (*Plano Decenal de Expansão de Energia 2013–2022*).

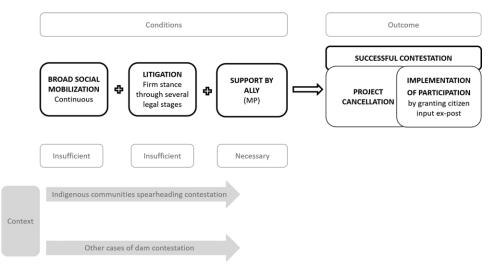
The causal path that both Brazilian cases share is demonstrated in figure 2. Similar to the Chilean cases, mobilization was initiated from the start of first project inspections but remained insufficient to yield any impact. Litigation involved several instances of contention, attempts to resist decisions, and actors. Importantly, these would not have been sufficient to cancel the projects—the institutional support of the MP was essential in both cases. Considering the problems of administrative enforcement in Brazil, as seen in the often overlapping and unclear environmental legislation, the MP has executed its mandate for the legal defense of environmental interests, implementing a more legalistic approach to the enforcement of participatory rights. Different from Chile, where Environmental Courts exist, in Brazil the MP is responsible for a large share of environmental litigation actions in the country's courts, acting as a very strong ally to relatively weak community challengers and offering strategic support to the affected communities. Therefore, we find that the MP was a necessary external actor whose support was crucial for the favorable outcome.

Figure 1. Causal Path I (Chile)



Source: Authors' elaboration.

Figure 2. Causal Path II (Brazil)



Source: Authors' elaboration.

CROSS-CASE COMPARISON AND DISCUSSION

Environmental regulations in Latin America offer authorities opportunities for adverse courses of action against citizen input. The bottom line to explain the lack of enforcement of participation in environmental governance is that participatory rights are often linked to discretionary decisionmaking because regulations are frequently vague enough to allow for flexible licensing criteria. In the cases under study, public consultations, for instance, were purposely delayed or disregarded altogether. Against this background, we explored patterns of successful litigation to understand its potential for overturning restricted citizen participation in decisionmaking about dams. The study was guided by the question about causal conditions leading to successful citizen opposition against dams, and whether and how litigation, in particular, can address gaps of citizen inclusion in decisionmaking.

Our results support the idea that controversial approvals of infrastructure projects can be stopped by ex-post legal action against weak technical assessments, and thereby frustrate the plans of the business sector against sustainability concerns (Roa-García and Brown 2017). To this, we add that litigation can contribute to forcing the implementation of citizen participation in licensing procedures while holding the relevant environmental authorities accountable (e.g., SEA in Chile and IBAMA in Brazil). As others (McAdam and Boudet 2012) have noted, in the cases under study, previous opposition to energy projects contributed to success. Therefore it is plausible that an indirect consequence of legal mobilization is the strengthening of the implementation of participatory formats in the longer term.

In sum, all of the studied cases demonstrate that litigation was both an avenue to ensure compliance with participatory frameworks and a necessary—although not always sufficient—condition for successful opposition and the cancellation of dam projects. We discuss these findings in turn.

First, as a vehicle to strengthen citizen participation, litigation can address gaps in licensing processes. In principle, the institutional frameworks relevant for licensing assessment in both Chile and Brazil provide for the participation of affected communities through public and Indigenous consultations or the submission of citizen observations to IASs. However, our case studies show different opportunities for the contribution of litigation in the two countries under study. Whereas in Chile Environmental Courts function as key legal enforcers, in Brazil it is the MP that offers allyship to community challengers. As others do (Rodríguez-Luna et al. 2021), we observe a relative impartiality of the courts and consequently a more powerful role of litigation in Chile, in comparison to Brazil. Not only are court proceedings more accessible, but decisionmaking is also quicker than in Brazil. In Chile, the Environmental Courts, in combination with the low-threshold *recurso de protección* (RP) appeal option, provide an accessible avenue for legal complaints when civil rights are infringed in environmental matters.

Overall, the legal system appears to be more mature in Chile than in Brazil, where it took much longer for citizens to get support from allies. Thus the political opportunity structure for litigation is stronger in Chile, and therefore litigation, in

combination with social mobilization by the affected communities, was sufficient for success. Contrary to that, in Brazil, allies were necessary for success, although the challengers' movements were even broader, encompassing more social organizations than the affected communities themselves (see also Hochstetler and Keck 2007). The MP filled the role of a powerful ally inside the state in both Brazilian cases.

Second, therefore, in line with the joint effect model, successful cases lean on a combination of various legal and political opposition strategies. Consistent with the recent literature (Hess and Satcher 2019; Scheidel et al. 2020), we find that challengers mobilized from the very onset of project inspections, procuring information and using different opposition strategies (e.g., protest, occupations, litigation). In line with Giugni's model (2007), the study shows that intermediary actors and allies are key to success. However, Hess and Satcher (2019) show that alliance with state authorities is not a sufficient condition and might be effective only in combination with other strategic actions, such as litigation. In Brazil, the MPF is a resourceful institution with the power to advocate and guarantee participatory rights. Other important actors are legal and technical experts who support communities by reexamining IASs and systematically dismantling projects (Broitman and Kreimer 2018; Ferreira et al. 2016).

Legal actions can, from early on, as the Mediterráneo case shows, keep projects paralyzed and allow citizens to gain time for reanalyzing project proposals. Apart from a court's ruling to stop a project, litigation can also yield indirect pressure on environmental authorities to withdraw approvals or reexamine studies and request technical improvements, as it did in the Brazilian cases.

In addition, judicial complaints that are supported by political allies and accompanied by social mobilization can trigger important controls, which can force environmental authorities to democratize decisionmaking processes, stick to the rules, and in the longer term, develop relevant institutions further toward more substantial citizen participation (Broitman and Kreimer 2018; Schaeffer 2017). Generally, the facilitation of judicial procedures and lowered thresholds for citizens to make use of them, such as via the RP in Chile and the MPF in Brazil, has helped citizens in our cases to navigate various legal processes. All cases involved the highest national court, the Supreme Court. This suggests that litigation can be a strong instrument—in the long run—to force the Eradication of power imbalances that still characterize environmental governance in the region (Raftopoulos and Morley 2020).

Conclusions

The approach taken in this study builds on previous scholarship that has highlighted the conjoint effect of mobilization, allies, and political opportunities for movement success (Giugni 2007; Amenta et al. 2010). Our perspective transferred previous findings of this literature about the consequences of social movements to citizen participation in environmental policy processes. The approach helped to understand the mechanisms that foster citizen participation in environmental

impact assessments, a regulatory framework increasingly adopted by countries around the world for decisionmaking on infrastructure projects. This study adds to previous scholarship, as it highlights that litigation is a key element used by community movements to enforce citizen participation and shows what factors are necessary for successful litigation. In fact, litigation not only can be exhausting and time-consuming for communities, but it also needs to be used in combination with other opposition strategies, such as public rallies.

In identifying conditions for successful opposition against dams, we observed that the argument most often taken into account by the courts was the Indigenous component: the lack of prior consultation and neglect of their connection to ancestral land. Indeed, infrastructure projects often involve the appropriation of territories traditionally inhabited by cultural groups, such as Indigenous peoples (Eichler and Bacca 2020). However, our results emphasize that these groups are not passive victims of unjust processes, even in times when democratic participation in many countries seems to be in decline. Indigenous communities organize themselves in movements and build networks with local and regional authorities in order to be integrated in institutional politics (Heinelt 2019).

Our endeavor to examine positive cases was led by the idea to demonstrate practice-relevant pathways for communities opposing energy infrastructure. By applying a least likely cases comparative design, we support findings by other scholars that litigation can revert adverse outcomes of official decisionmaking. In addition to that literature, we show how litigation can address gaps in licensing procedures, be combined with protests and early mobilizations to craft effective strategies to defeat dam construction, and trigger new controls that force environmental authorities to democratize decisionmaking processes and improve existing institutions. Moreover, we highlight that legal action can be a tool for more effective implementation of formally enshrined community participation in the longer term. This perspective adds to Jaskoski's work on the effects of participatory provisions (2022) by emphasizing that unfulfilled participation provokes citizens' reactions and that these reactions—legal and social mobilization—can strengthen participation.

More variation across cases, including cases with gradual outcomes, such as project implementation followed by compensation and remediation, and cases in which dam projects went ahead despite citizen opposition, could be integrated to corroborate hypotheses and to explore the effects of litigation further. Notwithstanding the relatively limited cases and geographic distribution, this study offers insights into how litigation can address gaps of citizen inclusion in decisionmaking. Further research could compare the impact of litigation in other Latin American countries, such as Bolivia, Colombia, and Peru, where remarkable participatory formats exist but communities are threatened by major infrastructure projects and participation remains restricted.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

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