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Slow justice and other unexpected consequences of litigation in environmental conflicts

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A B S T R A C T

Movements are increasingly taking companies to court for environmental and social harms. Yet little is known about the consequences this strategy has for movements and their struggles. Through a cross-country comparison of three environmental litigation cases in Argentina, Nicaragua, and Spain, we find that local groups encounter three interrelated consequences: i) 'slow justice', a strategy generally driven by companies to delay proceedings and demobilize movements; ii) courts reduce complex impacts to simplified, scientifically verifiable and legally punishable damages, thus invisibilizing certain harms, victims, narratives and demands; and iii) local groups lose control of the resistance process as judges and lawyers become key decision-makers. These dynamics interact with the specific features of environmental conflicts —uncertainty, slow violence and marginalized affected parties— to deepen power inequalities in litigation processes. Our findings are contextualized within the literatures on legal mobilization and the judicialization of politics. We conclude that social movements, when looking for a fair and just solution through the judicial system, encounter different but highly hierarchical power structures. And even if they win in the courts, companies can avoid complying with the judicial orders.

1. Introduction

Social and environmental movements worldwide are increasingly appealing to courts of law to challenge social and environmental injustices and claim compensation and environmental reparations (Scheidel et al., 2020, Boutcher and McCammon, 2018, Domingo, 2010, Sovacool et al., 2022, Hess and Satcher, 2019). These movements now rely overwhelmingly on litigation to address matters that were previously "negotiated in an informal or nonjudicial fashion" (Hirschl, 2010, p.121). Dealing with conflicts through legal processes has transformed courts into important sites of environmental political decision making worldwide (Sieder et al., 2005, Vallinder, 1994, Merlinsky, 2013).

Situated at the intersection of three different scholarships —on social movement theory, environmental conflicts, and the judicialization of politics— few and scattered studies explore the effect that litigation has on conflicts and social movements (Albiston, 2010). Social movement scholars have mainly explored the judicialization of rights-based struggles (Chen and Cummings, 2013, Handler, 1978, Burstein 1991, McCann 2008, Zemans 1983), paying attention to why these struggles occurred and their effectiveness (Boutcher and McCammon, 2018), but not the effect that going to court has on the movements themselves. The growing and more recent literature on the "judicialization of politics" explores how a wider set of public policy and political controversies, which include environmental claims, are being brought to court because of the limitation of administrative and political processes to address them (Hirschl, 2010, Domingo, 2004, Vallinder, 1994). Much of this literature explores the reason for the emergence and scope of this judicialization (Sieder et al., 2005, Dressel, 2012, Hirschl, 2010, Couso et al., 2010, Domingo, 2004). Again, though, this research has only collaterally examined how judicialization impacts conflicts and movements. Here, we address these open questions by focusing on groups fighting for environmental justice.

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Environmental justice scholarship focuses on environmental conflicts. Researchers in these fields explore how local groups and communities are affected by and react to the impacts of pollution, extraction and oppression (Martinez Alier, 2002, Conde, 2017). Within this field, scholars have largely overlooked litigation strategies despite its ubiquity (Scheidel et al., 2020). According to the Environmental Justice Atlas (EJAtlas), a global registry of environmental conflicts, in about 46% of its 3869 registered cases (until March 2023) environmental defenders mobilized litigation strategies (EJATLAS, 2023).

In this paper we adopt a comparative approach with three case studies in Argentina, Nicaragua and Spain, in which local groups have taken their struggles to court to try to stop pollution and/or achieve compensation or reparation for damages inflicted to the environment and human health. By local groups we mean formal or informal associations that form part of a wider movement that opposes environmentally harmful projects. Our findings suggest that local groups engaging in environmental litigation encounter what we have termed "*slow justice*". The temporality of judicial processes is instrumentalized, generally by companies, to delay proceedings and outlast the energy and finances of affected parties and local organizations. Moreover, we find that groups also face a *reductionism and invisibilization* of impacts, affected groups, narratives and demands; and a *loss of control* of the legal process with local groups and movements transferring (decision making and narrative building) power to judges, lawyers and movements' leaders. Therefore, even though the use of judicialization in environmental conflicts can have positive outcomes and boost environmental justice (Scheidel et al., 2020, Hess and Satcher, 2019) our research adds knowledge on how unexpected consequences can deepen concomitant unequal power relations and increase environmental and social injustices.

Next, Section 2 outlines key debates in the judicialization of politics, legal mobilization, and social movement literatures. After explaining our methods in Section 3, Section 4 introduces the case studies and Section 5 develops the three main consequences that engaging in legal mobilization has for environmental movements. We conclude in Section 6 by highlighting the role of unequal power relations posed not only by companies but by the legal arena itself.

2. Judicialization in environmental conflicts

In order to study the impacts of judicialization on environmental conflicts, this paper engages with three fields of research; it instigates a hitherto marginal debate in environmental conflict studies and political ecology, merging with and contributing to the literature on the judicialization of politics and the branch of social movement theory that deals with legal mobilization.

2.1. Judicialization of politics and judicial mobilization

The 21st century has witnessed a retreat of the state (Sawyer, 2004). Political concerns have migrated toward the legal realm, creating a belief in legal processes' potential to assist in the creation of a more just society (Couso et al., 2010). The growing literature on the judicialization of politics aims to provide a broader definition and analyze its scope across countries and regions (Dressel, 2012, Hirschl, 2010, O'Donnell, 2005, Ginsburg, 2009). It highlights two processes of institutional change: a top-down process that operates through political judicial activism and a "judicialization from below" (Hirschl, 2010, p. 11, Domingo, 2010) where grassroots organizations are increasingly using courts as the stage of their struggles to advance their goals (Couso et al., 2010, Dressel, 2012).

While the study of legal mobilization is not new in social movement studies it has received substantially less attention than other mobilization strategies (Boutcher and McCammon, 2018). The term "legal mobilization" refers to the wide range of efforts by social actors to challenge the current state of law, including putting pressure on legislative leaders, going to the courts or invoking the law as a discursive and symbolic tool (McCann, 2008). Here we focus on a particular form of legal mobilization: litigation strategies (or impact litigation) deployed by local groups to pursue social change through the courts. Boutcher and McCammon (2018) identify two streams of research. The first and most prominent stream studies circumstances under which activists pursue litigation strategies. This research highlights the importance of political opportunity structures such as state institutions or the receptivity of political leaders (Almeida and Stearns, 1998, Flynn, 2011, Sikkink, 2005) as well as legal opportunity, which refers to structural and contingent elements in the judicial system such as sympathetic judges or political pressure on the judiciary (Hilson, 2002). The second stream examines how taking their struggles to court affects movements' potential for creating social change and achieving their objectives. Initial studies were quite skeptical in this regard (Scheingold, 1974, Handler, 1978, Rosenberg, 1991), but later analyses pointed to the spillover (Meyer and Boutcher, 2007) or indirect effects that supposedly unsuccessful struggles can have on other movements (McCann, 1994, McAdam 1982, Smulovitz, 2010).

Sousa Santos and Rodríguez Garavito (2005)[1] highlight the growing grassroots contestation to the advancement of neoliberal institutions and globalization through "the formulation of alternative legal framework" (p. 4). Going to the courts is only part of what they term "subaltern cosmopolitan legality". They show, through numerous examples across the globe, how marginalized groups are conceiving new identities and rules that challenge, change and democratize national and international regulations that exclude or oppress them. Several authors point to an intensification of a process known as juridification, whereby social actors are increasingly involved and empowered in processes of law creation (Azuela and Mussetta, 2009, Sieder et al., 2005, Lutz and Sikkink, 2001), the use of legal language and symbols (Rosén et al., 2021), and come to see themselves as legal subjects through the process of claiming rights (Blichner and Molander 2008, Merlinsky, 2013). Although judicialization (i.e. going to courts) can be understood as a subset of the wider phenomenon of juridification (Sieder, 2020), we distinguish that movements use both law creation (juridification) and litigation (judicialization) strategies.

2.2. Environmental conflicts, slow violence and litigation strategies

From the perspective of environmental justice studies, environmental conflicts are struggles over the unfair distribution of pollution and health risks that arise from the extraction, transport and disposal of resources and energy (Martinez Alier, 2002). Power and wealth inequalities direct environmental damage and risk toward groups that are marginalized along lines of race, ethnicity, gender and class (Bullard, 1990, Scheidel et al., 2020, Dell'Angelo et al., 2021; Martinez Alier, 2002), which deepens power imbalances in contentious environmental processes.

Affected groups and territories struggle to defend their land, livelihoods, and culture. In environmental justice struggles, groups not only challenge the unfair distribution of the costs and benefits of polluting activities (distributive dimension), but also pay attention to the lack of recognition of difference (recognition dimension) and how the two are tied together in political and social processes - i.e. decision making, judicial processes (procedural dimension) (Young, 1990, Cole and Foster, 2001, Schlosberg, 2007).

Groups mobilize a variety of strategies that range from public mobilization, campaigning and network building to counter-knowledge

[1] We would like to signal that when this paper was in preparation, Boaventura Sousa Santos was suspended and under investigation for different cases of sexual harassment. The authors of this paper would like to express our support and solidarity to those that are subjected to such unacceptable behavior.

creation and litigation (Scheidel et al., 2020, Conde, 2017, Sovacool et al., 2022, Hess and Satcher, 2019). In this paper we focus on litigation strategies. We pose that litigating in the context of socio-environmental controversies, where stakes and uncertainties are high, and processes of slow violence take place, entail particular challenges.

Groups mobilized in environmental conflicts are often victims of slow violence: toxic pollution that builds and accumulates, everyday, slowly on lands and bodies. Nixon (2011) describes this as "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (p. 2). Dayna Nadine Scott (2012) sheds light on how legal systems underestimate the consequences of slow violence on people's bodies and territories. She points to two barriers: (i) legal language that is generally not accessible to the global poor, and (ii) the need to reduce harm claims in order to adapt to what can be compensated or what 'experts' can prove. In this vein, (judicial) procedural injustices (Cole and Foster, 2001) exacerbate in the context of environmental struggles, as they involve complex processes of pollution and slow violence that are only partially addressed by legal proceedings.

Indeed the assessment of environmental and health impacts is marked by high and generally irreducible uncertainties (Funtowicz and Ravetz, 1994). In court, while local groups can emphasize uncertainties to try to delay the start of a new project, companies take advantage of uncertainty to deny or justify harm (Michaels and Monforton, 2005, Conde, 2014, Conde and Walter, 2022). Environmental litigation requires evidence of harm or wrongdoings in which science becomes a strategic language of the legal process (Boden and Ozonoff, 2008). Environmental and local organizations thus not only need lawyers but also scientists to collect and present evidence on environmental and health risks, revise technical documents such as Environmental Impact Assessments, provide expert witness in judicial processes, and bestow legitimacy to their claims (Corburn, 2005, Martínez-Alier et al., 2011, Conde and Walter, 2022, Conde, 2014).

Another key actor in (environmental) litigation processes are local and supra-local activist lawyers that can work for free, pro-bono or receive financial support from activist networks. There are numerous university-based environmental law clinics found especially in the US but also in China (He et al., 2017), Australia, Europe and Latin America (Hamman and Heaps, 2021) that support local groups, providing learning opportunities for law students.

The use of litigation strategies in environmental conflicts is not new. In 1971, the Sierra Club, a US environmental organization, coordinated the formation of an Environmental Defense Fund aimed at gaining legal standing to file claims in courts for environmental protection (Turner and Clifton, 1990). Cole (1994) identifies a Texas civil rights case in 1979 that challenged the siting of a garbage dump near an African American neighborhood as the "parent" of environmental justice litigation in the US. Since then litigation has become a key component of US environmental justice campaigns. In Europe, Vanhala (2012, 2018) highlights how NGOs use litigation despite substantial losses and limited legal opportunity structures, seeking publicity and pushing the boundaries for future legal actions. In Latin America, the increased use of litigation strategies by environmental movements has sparked a rich social and scholarly debate on judicial strategies and the lack of democratic quality (Domingo, 2004, Merlinsky, 2013, Ryan, 2010, Special Issue Íconos, 2022). Another landmark case has been indigenous communities' long, wearing but legally successful case against Chevron Texaco in Ecuador. In 2013, the company was ordered to pay US$9.5 billion to compensate affected groups and to remediate the oil pollution in Lago Agrio. The court decision, however, was never recognized by the company and the compensation was not paid (Pigrau, 2014). The company continues to claim its innocence through international campaigns and has legally persecuted local and international supporters (Reuters, 2020).

2.3. Judicialization strategies: A double-edged sword for affected groups

Deploying legal strategies can be a double-edged sword (Guzman Solano, 2016). Scholars have identified the constitutive role of legal rights as a strategic resource and a constraint, a source of empowerment and disempowerment, a space where movements struggle to contest and reconstruct the terms of social relations and power (Scheingold, 1989, Silverstein, 1996). While judicialization and juridification strategies can have emancipatory potential "countering hegemonic globalization" and "reimagining legal institutions from below" (Sousa Santos and Rodriguez Garavito, 2005, p. 4), these can also reproduce "patterns of domination and hegemony" intensifying unequal power relations (Sieder, 2011, p. 242).

The attractiveness of judicialization as a mobilization strategy for social movements or local groups is multifold. The judiciary allows groups "to assert their rights" and "hold government and politicians accountable" (Sieder et al., 2005, p. 2). Morales and Azócar (2019) argue that companies are pushed to improve their behavior thanks to the pressure from the judiciary on the state or the company itself. Authors have pointed to numerous extra-legal benefits or indirect effects of judicialization such as an increase in social mobilization, educational reach and organizational funding (Smulovitz, 2008, NeJaime, 2010, McCann, 1994, Cole, 1994, Vanhala, 2012). It can also hinder plaintiffs from disengaging, giving "political vitality to their demands" (Smulovitz, 2008, p. 303). In this line, litigation can give further momentum to movements as in the case of the Mapuche in Chile who gained a "legal consciousness" and understanding of their political battle (Skjaevestad, 2010, p. 210). Sieder (2011). Other authors point to the "spillover effects" where activists and strategies travel across movements creating new political and legal opportunities (Meyer and Boutcher, 2007). Social movements might also engage in litigation not necessarily expecting a legal victory, looking instead to give publicity and visibility to the conflict and gain public support (Losekann and Bissoli, 2017, Taylor and Da Ros, 2008, Cole 1994, Vanhala, 2012).

Yet, litigation is a lengthy and expensive strategy (Snow et al, 2018, Sovacool et al., 2022). As the highly polluted Matanza-Riachuelo basin case in Argentina showed, communities worn out while their demands stuck in the legal system, not solving urgent and dynamic problems (Fainstein, 2018, Merlinsky, 2013). Judicial processes pose additional challenges by reducing complex social processes to representations previously defined by state actors or experts (Geertz, 2008, Petryna, 2004, 2009). Court proceedings treat every person and situation as their categorizable attributes, fixing the identities of local and indigenous groups and limiting or altering their demands (Sieder and Witchell, 2001). This can generate a "manufactured truth" that does not represent the realities of those impacted or their self-narrations, limiting life-stories into "generic narratives of suffering" (Scott, 2012, p. 486, Sieder, 2011). Through the analysis of the demands by those injured in the Chernobyl fall-out in Ukraine, Petryna (2004) shows how the state defined who was a victim and who was not as well as which harms were compensated and which were not. In this line, sociolegal scholars have criticized the category of victim itself due to a tendency of positivist methods of data collection to invisibilize "narratives, subjectivities and experiences" (Wilson, 2006, p. 81). Litigation can thus promote some factions within the movements at the expense of others Levitsky, 2015). The imposition of legal language on bodies generates what Vazzi (2017) terms the "biopower of law". Through the judicial process, powerful actors can gain control over the lives, rights, and narratives of vulnerable inhabitants. This has psychological, social, and cultural impacts, and can further exacerbate the socio-environmental conflict, marginalize local groups and "deradicalize" the movement (NeJaime, 2010, p. 951).

Several authors point to courts' lack of democratic accountability. The judiciary is the least democratic of the three branches of government (Kramarz et al., 2017, Rios Figueroa and Taylor, 2006; Smulovitz, 2010). Warning against the use of the judiciary to change

(environmental) policy, Kramarz et al. (2017, p. 47) point to a lack of "vertical accountability" where "at the end of the day, it is the judges, not the people, who have the last word". Judges make decisions from a particular specialization and background (Fainstein, 2018) and can also act without the "detachment that is formally expected" (Bölter and Derani, 2018, p. 227), resulting in an individualization of the case (Bölter and Derani, 2018) or its depoliticization (Smulovitz, 2008). On the other hand, Sieder et al. (2005) point out that judges can also be activists representing the interest of the weak and can overrun unjust decisions made by democratically elected bodies. As with judges, lawyers can also play a crucial role dictating the litigation strategies and ultimately, that of the movement (Cummings and Eagly, 2001, Boutcher and McCammon, 2018, Dressel, 2012, NeJaime, 2010).

All these characteristics vary widely across countries and regions (Dressel, 2012, Sieder et al., 2005). Especially relevant is the role of corruption and what has been termed as the "politicization of the judiciary" (Domingo, 2004, p.106) in which powerful actors gain some degree of control over court outcomes through, for example, direct influence of 'friendly' judges (Ríos Figueroa and Taylor, 2006, Hirschl, 2010).

More generally, critics of litigation have argued that social movements adopting this strategy detach themselves from the arena of politics, where inequality and unequal power relations can be addressed directly, and instead interact in the legal arena where the issues are "abstract, technical, and depoliticized" (Munger, 2012, p.81), thus losing control of the real issues at stake and legitimating the larger structure of legal ideology and law (NeJaime, 2010).

3. Methodological approach

This paper's research followed a grounded theory comparison (Glaser and Strauss, 1967). We compared three different densely documented cases (Eisenhardt, 1989) that involve local groups taking large international companies to court for impacts on their health and the environment. The aim of the research was to learn from these different cases about the (common) consequences of litigation for local groups and movements and their struggles. The case studies take place in countries in different stages of economic development although they follow the civil law system, also called continental law. They involve different commodities: mining extraction in Argentina (metals) and Spain (potash) and pesticide-intensive banana production in Nicaragua. The case studies address different litigation stages (from early stages to after sentencing) and involve different demands (compensation, remediation). Through an iterative process of analysis and comparison between the cases, and an iterative literature review on emerging themes, we identified and conceptualized similar consequences that litigation had on the movements and conflicts.

The three case studies were initially developed independently as part of doctoral and post-doctoral research projects on environmental conflicts. Nicaragua's case entailed three-month fieldwork during 2018 in the province of Chinandega. In-depth interviews were carried out with affected agricultural workers, leaders of the movements behind the legal strategy, and three national NGOs supporting the workers' organizations (see Navas et al., 2022). The Spanish case involved two-month field work with in-depth interviews with affected farmers as well as members of the different environmental groups, government representatives and one of the lawyers involved (see Gorostiza and Sauri, 2019, Gorostiza et al., 2022). The Argentinean case was developed by a social sciences researcher based at the Argentine Institute of Nivology, Glaciology and Environmental Science (IANIGLA). The head of this Institute was inadvertently drawn into the legal process here analyzed. This research involved interviews and informal conversations both with representatives from different local assemblies as well as scientists at the IANIGLA Institute (see Rojas and Wagner, 2021).

4. Background of the case studies

4.1. The salt waste-pile of Sallent, Spain

Since the 1920s, phosphate mining operations, now owned by ICL (Israel-based company), have generated a well-established environmental health controversy in Catalonia. The salt waste pile of Sallent ("el cogulló de Sallent" in Catalan) and other waste piles are polluting the Llobregat River Basin, one of Barcelona's main water sources. Several local groups emerged in the 1990s to denounce the activities of the mining company. Their objective was not to shut down the mine — as it employed more than 1000 workers from the area — but to demand that the company "do the right thing [environmentally]" (Interview Spain #2). The legal process started in 1997 when two local environmental groups and a local lawyer submitted a criminal complaint. In the 2000s three other administrative complaints were presented by the same groups. Despite numerous appeals by the company and the state, the plaintiffs received favorable court rulings in the High Court of Justice of Catalonia. This has obliged the company, 27 years after the first complaint, to stop dumping waste in their biggest waste pile and reorient all its production to its second mine in Suria. This mine is located only a few kilometers away and gathers huge local support. Environmental groups are not the only actors to engage in legal strategies. AFASAL, the association of Spanish salt producers, feared the company's plans to sell the (waste) salt on the market would likely plummet the price of salt, and their lawyer successfully presented a complaint at the European Court of Justice for unfair competition. Moreover, Sebastià Estradé, a retired lawyer and science-fiction writer also successfully sued the company in 2013. He won the first legal case demanding a higher remediation closure fund and the start of a remediation plan for the biggest waste pile (Gorostiza, 2019).

4.2. Pesticide pollution in Nicaragua

Dibromochloropropane (DBCP) is an organochlorine pesticide (also known by the brand names 'Nemagón' or 'Fumazone'). In Nicaragua, DBCP was used as a soil fumigant in the banana plantations located in the province of Chinandega (Northwestern Pacific Coast of Nicaragua) from 1973 to 1993 (Gómez Suárez, 2013). In 1992, when workers began to notice and suffer from the slow violence long-term effects of DBCP exposure in their bodies and their children's bodies, formed the Association of Workers and Ex-Workers Affected by Nemagon (ASOTRAEXDAN). Workers sought monetary compensation by filing cases in the US where the companies that produced DBCP (Shell Oil Company and Dow Chemical) and used it (Dole Food Company and other banana plantation corporations) are based. To file cases in the US, workers were able to use a precedent in which workers of a DBCP-producing plant in California were found to be infertile in 1977 and had won compensation. In 2007, after 20 years, some cases were successfully brought to trial. However most cases were dismissed through the "forum non conveniens doctrine"[2] and sent back to the workers' home country (Bohme, 2015). Realizing the Nicaraguan justice system would not provide legal support against foreign corporations, workers and their supporters worked to pass a new law in Nicaragua. This juridification process culminated in 2000 with the enactment of Law 364 "Special Law for Banana Workers Victimized by the Use of DBCP-Based Pesticides" which effectively forced a trial in the US or in Nicaragua (Bohme, 2015, p. 36). Since 2001, numerous lawsuits have been filed in Nicaragua, many of them ending in favorable judgements. However, so far, companies have refused to pay the compensation

[2] Forum non conveniens allows courts that have jurisdiction over a case to stay or dismiss the case upon a determination that the case may be heard more appropriately in another court, for example because the plaintiffs are citizens of a foreign country and sources of evidence are found in the foreign country. (Oxford Public International Law).

mandated by these few judicial victories.

4.3. Cyanide spill in Argentina

The Veladero gold mining project owned by Barrick Gold has been functioning in Argentina's San Juan province since 2004. In 2015, millions of liters of a cyanide solution spilled into nearby rivers and ecosystems. In response, a member of the self-convened neighbors' assembly *Jáchal No Se Toca* (Don't Mess with Jáchal) submitted a criminal complaint against the company and the provincial government. The case reached the national court. A conflict between judges about jurisdictions ensued[3] resulting in the decision in 2016 by the National Supreme Court of Justice (SCJN, in Spanish) to split the complaint between both jurisdictions. Mining executives and provincial authorities were to be investigated by the provincial judge, and the federal authorities by the federal judge. This division of the judicial investigation meant that the main party responsible for the mining spill, the company, was to be investigated in the provincial court, where environmental movements claim the government favors the company's interests (Iezzi, 2011, Antonelli, 2016, Gorenstein, 2020).

Moreover, the federal judge decided to expand the complaint of the Jáchal assembly, and indicted some government officials and a scientist, Dr. Ricardo Villalba, who was the director of IANIGLA, the institute in charge of carrying out the national glacier inventory mandated by the Glacier Law. Argentina is the only country in the world that has a "Law for the Protection of Glaciers" (the Glacier Law), which was approved by the Argentinian National Congress in 2010 after an intense campaign led by environmental organizations, movements, and the scientific community. The judge considered that the methodology used by Dr. Villalba's research team, which included only glaciers of more than one hectare (the usual practice in the field, glaciologists claimed), limited the spirit of the Glacier Law and favored the Veladero mine, which was then able to pollute glaciers smaller than one hectare. The scientific community protested this accusation (see national and international support letters in CONICET (2017). While, at first, the Jáchal assembly remained silent, later they supported the judge's decision (Página 12, 2017). This unexpected decision divided two key sets of actors in the defense of the glaciers: the scientific community and the environmental movement.

5. Judicialization consequences: Slow justice, reductionism, and loss of control

Based on these cases we have identified three interrelated ways in which judicialization can deepen injustices and power inequalities in socio-environmental conflicts.

5.1. Slow justice and the role of temporality

Temporality is central in environmental litigation strategies. Depending on the stage of the conflict and their position in it, actors might aim for an expedited or drawn-out legal process. Local groups that want to prevent a new extractive or polluting activity hope for a long legal process that deters or stops the project altogether (Domingo, 2010). If the project has already started, on the other hand, local groups can engage in litigation hoping for a not-too-lengthy resolution that stops environmental harm, makes polluters pay to repair it and compensate affected parties. Conversely, companies want a swift judicial resolution to push forward a new industrial development or a slow judicial process to avoid paying for reparation or compensation.

We thus often find that plaintiffs involved in environmental litigation complain of long legal procedures that can last for decades — nearly three decades for the Nicaraguan and Spanish cases. We argue that this is not due to the functioning of the judicial system but to what we have termed slow justice. We define slow justice as an economic and political strategy used by certain actors to instrumentalize the speed of judicial procedures in order to serve their interests and/or avoid accountability. Slow justice is generally driven by companies whose aim is to prevent and delay judicial decisions. Companies can afford to sustain long judicial processes and employ different strategies including filing multiple appeals, funding the elaboration of long technical reports, and attempting to influence judges and governments, exhausting the plaintiffs' resources and time. Judges can also play a relevant role slowing, stopping or accelerating legal proceedings. Slow justice often involves the transfer of legal proceedings across regional, national and transnational jurisdictions that delay the resolution of court cases.

Slow justice perpetuates and exacerbates slow violence. In both the Spanish and Nicaraguan cases local groups took the companies to court in an attempt to make visible and overturn decades of slow violence, to gain compensation or remediation. However they got pushed back repeatedly as proceedings moved back and forth between courts and jurisdictions, delaying the sentences and their enforcement. By allowing slow violence to continue, slow justice increases environmental impacts and risks.

Based on our case studies we identify different slow justice strategies that companies have used before and after court rulings. Companies' lawyers systematically appealed each court ruling until it reached the highest possible court. In the Spanish case, the 17-year-long criminal complaint was won by the plaintiffs in every single court, but the company appealed the decisions through two lower courts until it reached the High Court of Justice of Catalonia (TSJC, in Catalan) with a decision favoring the plaintiffs in 2014. The decision was once again appealed and ratified two years later. Administrative complaints that started in 2008 had a similar fate; a complaint denouncing an incomplete environmental authorization also reached the TSJC after five years. The sentence, once more favoring the plaintiffs, was appealed but corroborated by the Supreme Court two years later. Another complaint challenging the expansion of the waste pile reached the TSJC which ordered the company to stop dumping waste in 2016. This decision was unsuccessfully appealed by the company at the TSJC and the Supreme Court. The day before the deadline to stop dumping waste (June 30th, 2017), the TSJC extended the deadline by two years. Similarly, in Nicaragua the cases reached the US courts in the early 2000s after several years of proceedings to then be dismissed. Back in Nicaragua, companies also appealed each court decision.

Once the ruling is firm, companies can adopt several strategies to avoid the enactment of the sentence. They can ignore or delay complying with the sentence, refuse or appeal the compensation or environmental remediation proposed, take their assets abroad, and obstruct every step needed to execute the sentence. In Spain, the criminal complaint and the court case put forward by Sebastià Estradé which also reached the TSJC and the Supreme Court, demanded a realistic remediation plan and funds to execute it. To date the waste pile is intact. The company has presented two remediation plans (the latest one in 2022) but the judges rejected both because they don't aim for the full remediation of the waste pile. The company was also ordered to compensate affected farmers but has appealed each request for information and each step undertaken by the legal experts to quantify the damage caused to the plaintiffs. With each allegation, the case got delayed weeks or months (Spain Interview #10).

Companies can also refuse the court rulings altogether. In the Nicaraguan case the companies refused the authority of the Nicaraguan courts. During a decade of favorable rulings following the enactment of Law 364 in 2000, Nicaraguan courts ordered the payment of US$805 million to workers. But companies have refused the verdicts and nothing

[3] The federal judge initiated an investigation of provincial officials. The provincial judge requested that he stop his investigation arguing it was a case of provincial jurisdiction. The federal judge denied this petition so the provincial judge filed a claim against this decision at the National Supreme Court of Justice (SCJN).

has been paid to date. The companies have also removed all their operations and assets from Nicaragua, preventing the government from confiscating them. This obliged workers to pursue new legal avenues in other countries where their assets exist, without success so far.

Judges can play an instrumental role in slow justice; they can move forward a case quickly or let it linger for years. In the Argentinian case, the case attracted huge public attention during its initial stages given the serious environmental impact and the implication of the Glacier Law. The federal judge moved quickly, attracting even larger public attention when he indicted a well-known scientist and some environmental officials in the national government. However, since the court case was assigned and divided between different jurisdictions public attention diminished. Since then the legal proceedings have not moved forward.

We highlight two main consequences that slow justice can have for the conflict and the organizations involved. First, judicial strategies become the central strategy used by local groups, displacing other strategies of mobilization. In the Spanish potash mining case, we observe that the opposition group Montsalat circulated petitions, met with local and regional governments, and carried out presentations, exhibitions, and conferences. However, after taking the company to court in 1992, and only after three years of its appearance, Montsalat reduced its activities to monitoring salts in rivers and conducting legal actions. Montsalat not only submitted the initial complaint, they stayed involved throughout the tortuous legal process. Today, they and their lawyer, Climent Fernandez, still respond to the numerous appeals from the company, provide information and write allegations. Although monitoring is ongoing, the legal avenue has been, according to them, their most successful strategy (Spain interview#2). A second opposition group, Prousal ("enough salt" in Catalan) experienced a similar evolution. In the first two years after the group emerged in 2006, they organized public talks, marches, mine blockades and other activities. They exchanged information and ideas with the lawyer of AFASAL (the Spanish association of salt producers), which caused internal divisions as not all members agreed with this alliance. Although Prousal did not engage in any legal proceeding, over time they dedicated increasing efforts toward following the ongoing cases initiated by other groups, drastically reducing other mobilization strategies (Spain Interview#2, interview#6, interview#7). "Over the years, our main activity was just keeping up with understanding all the legal procedures (…) and explaining them to the people in Sallent" (Spain Interview#9). The legal processes thus became both organizations' main narrative, monopolizing other demands (see section 5.2). In Nicaragua, similarly, workers engaged in various forms of mobilization to gain visibility —protests, blockades, marches, hunger strikes, *etc.*— during the 1990s and early 2000s. These mobilizations devolved into a long legal battle that continues to this day becoming their only strategy (see Bohme, 2015). Those remaining in the struggle meet once per month to receive information about the company's legal responses and possible extra-judicial negotiations (Nicaragua Interview # 1).

Slow justice can also influence the *resilience* of movements that lose resources to sustain themselves, intensifying internal conflicts and demobilizing supporters until, in some cases, the movement is left in shambles (Tarrow, 2011). In Nicaragua we have identified a general demobilization due to a decrease in economic resources, a loss of national and international alliances, and internal conflicts among workers and their leaders that have divided ASOTRAEXDAN itself. More pervasively, slow justice can delay and deny much needed compensation and health treatments. In Nicaragua, in 2018 when fieldwork was carried out, half the plaintiffs had passed away. The majority of those alive were over 65 (the youngest being 55), many of whom were very sick or "don't have the same energy as before" (Nicaragua Interview # 2). A worker stated, "Every time that one of us dies, this is a success for the company" (Nicaragua Interview #1). In Spain, the farmers asking for compensation are over 60. They showed a general belief that compensation would never arrive in their lifetime (Spain Interviews #11,12,15).

Nevertheless, local groups and movements sometimes adapt to the consequences of slow justice. This was the case of Prousal and Montsalat, the local organizations in the Spanish case that demanded the environmental remediation of the waste pile. Although they did lose some steam (as we show below), they remained in latent mode and strengthened in key moments in the legal process, such as to respond to the publication of court decisions or to demand their enforcement. For example, they mobilized in 2008 to denounce the granting of the environmental authorization and in 2017 to demand the enactment of the sentence that stopped the dumping of waste. However, as we examine below, the monopolization of litigation as a mobilization strategy is also linked to the narrowing of demands and narratives of the movement.

5.2. *Reducing narratives, impacts and victims*

Legal proceedings reduce complexity by imposing a monoculture of legal language and reductionist definitions of what is harm, who is a victim of pollution, and who is responsible for it. Lawyers and judges can build and reject certain narratives of suffering that sideline affected actors' voices and demands. Engaging in litigation can also invisibilize cultural and social concerns and different types of knowledge and languages (Merlinsky, 2013, Fainstein, 2018). Exacerbated by slow justice, certain legal narratives permeate movements and society consolidating these reduced narratives of impacts, victims and suffering.

The reductive means of judicial processes are exemplified in the Nicaraguan case. An intergenerational pesticide contamination case has been juridically reduced to a single health effect in a single social group: male infertility. DBCP is a pesticide characterized by its persistence in the environment (around 100 years) and its lipophilic characteristics (it bio-accumulates in fatty tissues). Banana companies have known since 1977 about the link between male infertility and DBCP exposure due to a study of a DBCP-producer chemical plant in the US (Whorton et al., 1977). Yet, despite this scientific evidence, banana companies continued to expose workers without providing protective equipment or information about present and future risks for them and their families. Although DBCP was banned in the early 1990s, it remains in the environment. According to a study by Montenegro Guillén and Jiménez García (2009), 100% of water wells in Chinandega were still contaminated with DBCP. The effects of the pesticide are still present in the workers' and their childrens' bodies, causing not only male infertility but also cancer, miscarriages, congenital malformations in children, visual problems, and skin diseases. Yet only male infertility has been accepted as a court claim. This has generated two types of invisibilities: invisibility of health impacts other than male infertility and invisibility of the health impacts on women. Questioning the latter, women within ASOTRAEXDAN identify themselves as victims of DBCP and have continuously asked for medical check-ups to prove their ailments. Yet, these demands weren't considered in the movement's legal strategy, so women felt excluded not only from the judicial procedures but also from the movement itself (Navas et al., 2022).

Lawyers and movement leaders fostered this reductionism when they chose to strategically focus on scientifically proven ailments, making other impacts invisible (inside and outside the court). The requirement by law of scientific proof of harm is particularly relevant for this case where we find 'undone science'; namely, that scientific knowledge was not produced to reduce uncertainty and better understand the scope of DBCP's health impacts (Frickel et al., 2019, Bingham and Monforton, 2013), in particular its impacts on women (Navas et al., 2022). Unlike the other two cases where scientists are part of, or become key allies of the movements (Conde and Walter), in Nicaragua, scientists did not become key allies of local groups in the litigation process to do the undone science. Instead, it is the scientific evidence produced in the past by scientists in California (Whorton et al., 1977) that structured litigation and broader juridification strategies.

Law 364 included additional health impacts linked to DBCP exposure such as kidney, spleen, liver problems, cancer, or psychological disorders based on the workers' experience of harm. Companies rejected

responsibility for these exposures and have even tried to reduce the number of male infertility victims that claim compensation by generating doubt about the workers' testimonies about their life and working stories (Boix and Bohme, 2012). This 'juridical invisibilization' was challenged by Law 364 when the Benavente sentence in 2000 ordered 446 plaintiffs to be paid US$489 million for physical and moral effects (Bohme, 2015). But companies, again, refused to pay these compensations.

Scientists play a key role in documenting, addressing or neglecting certain environmental impacts and harms when they provide expert advice to judges, governments, and companies as well as mobilized groups (Conde, 2017, Conde and Walter, 2022). Before the Argentinian case was divided between courts, the federal court created a commission of scientists including hydrogeologist Dr. Robert Moran to assess the impact caused by the spill (Layna and Kreimer, 2018). Dr. Moran exposed the results of his study at the National Senate, receiving large national media attention. He exposed how the mining company had not made any measurements public and had altered the spill site in ways that made it difficult to assess the impacts. In contrast, the provincial court, in charge of judging the company, appointed technical assessments that concluded, in line with studies provided by the company, that the spills were caused by the negligence of the operators, who left a broken valve and a gate open that should have been closed (Layna and Kreimer, 2018). Despite these spills repeating in 2015 and 2017, the court case did not progress, and the company and the provincial government postulated that these were isolated events, "a negligent act." When environmental pollution can be attributed to human error or a localized technical break, it removes blame from structural causes such as lack of maintenance (Layna and Kreimer, 2018).

In the case of potash mining in Spain the judicialization process has also made some social and environmental impacts invisible and rendered it difficult to trace those responsible for them. Montsalat is driven by a biologist highly concerned with the impact on the nearby river ecosystem. The scientific evidence he provided sparked the first and only criminal complaint against company executives, which requested the rehabilitation of the land surrounding the waste pile and compensation for affected farmers. The rest of the legal complaints were mostly driven by lawyers (not scientists) and focused on administrative demands that ranged from the revocation of the environmental authorization to challenges to its urban license and urbanization plans. These judicial demands became the movements' main demands, ahead of other possible demands that could address the root causes of environmental impacts, such as the use of alternative greener methods of waste salt disposal. As with Shah and Mathur (2019), many impacts have been disregarded from the judicial process: the salinization of water and land of residents and farmers downstream from the mine, as well as those near the Suria mine (which was not included in the complaint); the mine's high water usage; and the damage caused by the leaks (20 per year on average) of the collector that transports brine 128 km to the sea (Gorostiza et al., 2022). The focus on administrative complaints is a legal strategy that has thus invisibilized many socio-environmental impacts.

5.3. Loss of control of the resistance process

Taking environmental conflicts to court, especially in a context of slow justice, can lead to a loss of control of the judicial process because of unequal power relations between local groups and judges, lawyers, companies, and even local leaders. Below, we explore the role of each actor and discuss how prolonged judicial proceedings can exacerbate these inequalities.

Local movements can lose control of the litigation process at the expense of *judges* (Smulovitz, 2008, Bölter and Derani, 2018) due to, at least, three tribunal dynamics. First, judges can decide on the jurisdiction of a case. This has important implications, as in the Argentinian case where the SCJN divided the case in two, allocating a provincial judge to rule on the company and a federal judge to rule on the national public officials' role in the environmental disaster. In the Nicaraguan case the "forum non conveniens" was applied in the US courts, which returned most legal processes to Nicaragua. Second, some courts are more favorable to certain actors. In the case of Argentina, the provincial court of San Juan seemed to provide a favorable treatment to the company (see above), and it is well known the provincial government also backs the company's presence (Gorenstein, 2020). Third, judges can bring new perspectives or legal actions that were not envisaged in the initial complaint. As we have seen in Argentina, this can work against the interests of the plaintiffs (see also Merlinsky, 2013). The unexpected decision by the federal judge to include the head of the IANIGLA Institute in the indictment led to disappointment and division between two key actors in the defense of the glaciers and the Glacier Law: the scientific community and the environmental movement (Martín and Healey, 2020, Rojas and Wagner, 2021). Although the initial objective was to stop mining projects such as the Veladero mine, this focus was lost when legal proceedings turned into a technicality about how glaciers are defined, and the legal responsibility of scientists. The distrust that emerged between environmental groups and scientists weakened historical alliances and has caused scientific communities to choose not to participate in environmental policies or ally themselves with social movements to avoid social and legal problems.

The loss of control can also be a result of *internal power dynamics* in the movement that include the key role of lawyers and movement leaders. In Nicaragua, lawyers have been instrumental in uncovering some forms of slow violence and legally supporting the workers' struggle. However ASOTRAEXDAN's members have on numerous occasions challenged lawyers' power and control over the legal strategies and demands, which, coupled with the use of incomprehensible legal language, did not match their own. A worker stated: "Lawyers have taken economic advantage of our suffering," for example by negotiating with the companies to obstruct judicial procedures in exchange for payments (Interview Nicaragua#2). Also in Nicaragua, local leaders are the link between the workers and the lawyers. While this seems to be an efficient organizational strategy, over time it has become another way of losing control. Many workers trusted, signed, and supported what their leader and lawyers advised. In this sense, workers were not the owners of their own process to claim justice: they had no direct contact with lawyers, they could not follow the legal procedures, and they had no decision-making power regarding legal strategies or demands. The internal power dynamics can have a gendered effect too as women victims of DBCP were often excluded from decision-making processes within the movement (Navas et al., 2022). This lack of accountability led workers to accuse the main leader of ASOTRAEXDAN of treason and corruption. He was forced to resign and was replaced in 2015 (Interview Nicaragua #3). The new leader promised more transparency and to include women in the legal procedures (Idem). In the Spanish case, all lawyers acted almost independently from the movement. One of the most active lawyers, Climent Fernandez, allied with local groups mainly to legitimate the legal cases. As he stated: "I could do it on my own, (…) but I would have limitations on the environmental side, as I don't have the legitimacy" (Spain Interview #10). He has thus become a key decision maker of the legal strategy, and arguably of the movement itself.

6. Conclusions

When social movements resort to litigation strategies they are often looking for a fair and just solution or compensation for the companies' and/or states' wrongdoings (Bölter and Derani, 2018). They are reacting to the unfair allocation of benefits and impacts that generally result from unequal power relations (Peet and Watts, 2004). However, in the legal arena they encounter a highly hierarchical power structure that speaks a particular legal language and makes issues depoliticized and abstract (Munger, 2012). Local groups thus not only have to face the unequal relations posed by companies and the state but the power structures of the legal arena as well.

We have identified three main consequences for movements that engage in environmental litigation. First, companies can instrumentalize the *temporality of legal proceedings to carry out what we have termed "slow justice,"* a deliberate strategy to extend and hinder the legal process allowing companies to carry on functioning and polluting, avoiding compensation or remediation measures. Plaintiffs generally lack economic resources and organizational capacity to sustain a long judicial battle. This can cause a monopolization of all other activist strategies and a reduction of a movement's demands and narrative to that of the legal complaint. This *reduction of complexity* also occurs during the legal process itself, where powerful lawyers, judges, and scientists, using legal and scientific language, decide what is harm and what is not, who is a victim and who is not, what is remediated or who is compensated, further marginalizing those affected. Social movements thus not only confront the power exercised by companies —promoting slow justice and uncertainty— and the judges —accepting or rejecting defendants and impacts, even initiating new demands— but also that of lawyers and local leaders, who can divert from the demands and needs of local affected groups and promote the avenues they think are more promising in the courts. Local groups can thus suffer a *loss of control* over the legal and resistance process (e.g. its narratives, alliances, strategies).

Even when movements or local groups win one or several court cases, they can still lose. Companies are often able to delay, minimize, or not pay for compensation or remediation. Movements then must find resources to carry on for even longer periods of time. Workers in Nicaragua took the case to French courts aiming to seize the company's assets in France. However in 2022, workers were let down again when French judges ruled that their courts had no jurisdiction over the companies (AFP, 13th May 2022). In the Spanish case, even though a local judge is generating pressure on the company to present a new and complete remediation plan, the most recent agreements with the regional government are to turn the waste pile into a solar plant, delaying, once more, its remediation.

We signal the relevance of juridification processes as a result of the limitations of legal frameworks to address slow violence and environmental controversies. In two of our case studies social movements embarked on the creation of new legislation to support their demands. This juridification strategy has been relatively successful: in Nicaragua, Law 364 allowed the plaintiffs to successfully place and win complaints in their country; in Argentina, the Glacial Law increased the protection of several glaciers and consolidated an important alliance between scientists and local environmental groups. But then it backfired in the judicialization phase when compensations were not paid and legal charges were brought against a renowned scientist. We hypothesize that much of the advancement of the "subaltern cosmopolitan legality" (Sousa Santos and Rodriguez Garavito, 2005, p.5) is the result of juridification strategies. Our research points how its enactment — the judicialization phase — encounters new and old power struggles and limitations that can be difficult to overcome. Research on the interrelated outcomes of juridification and judicialization strategies could inform future actions of environmental movements.

Given that litigation strategies have had positive outcomes and beneficial spillover effects in numerous environmental conflicts (Hess and Satcher, 2019, Vanhala, 2012), we hope that this rather bleak analysis serves as a warning for groups looking to engage in environmental litigation. We pose that local groups could aim to increase resilience when planning for long judicial battles. This could be achieved not only through securing (not always accessible) resources but through the adoption of "head-in-the-sand" strategies for legal action. Learning from the Spanish case, groups can react to key court decisions and demand their enforcement in ways that do not invisibilize their broader claims and strategies. The lesson to avoid the monopolization of strategies is not a new one (Cole 1994, Hess and Satcher, 2019): research based on the Environmental Justice Atlas suggests that combining litigation with diverse forms of mobilization increases the success rate (i.e. project stopped) of environmental movements (Scheidel et al., 2020). In this vein, local groups should avoid a monoculture of legal language and demands, and maintain a narrative that connects with local cultural and social processes while creating broad alliances and solidarities with civil society, governments, policy makers, and crucially scientists and lawyers.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors do not have permission to share data.

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