

RESEARCH NOTE

# Mapping Out Juridified Conflicts over Mining: The Legal Cultures of the Subsoil Database

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## Abstract

Indigenous peoples, rural and peasant populations, and Afro-descendants have increasingly disputed mining and other extractive ventures in the territories they inhabit in various regions of Latin America. This article introduces an open-access digital and bilingual curated repository of data that compiles legal and legal-like actions by various actors in the context of paradigmatic conflicts over mining in Central America and Mexico. It situates the relevance of this digital resource against the background of the increasing global recourse to law in socioenvironmental conflicts—a tendency that may be defined as the juridification of environmental politics. The article also places the database in relation to key debates in digital humanities and discusses potential uses as well as future developments and challenges to expanding and improving such a resource.

**Keywords:** extractivism; juridification; law; environmental justice; digital humanities

## Resumen

Los pueblos indígenas, las poblaciones rurales y campesinas, así como las comunidades afrodescendientes, han cuestionado cada vez más la minería y otras actividades extractivas en los territorios que habitan en varias regiones de América Latina. Este artículo presenta un repositorio de datos de acceso abierto, digital y bilingüe que compila acciones legales y acciones que emulan lo legal emprendidas por diversos actores en el contexto de conflictos paradigmáticos en torno a la minería en América Central y México. Sitúa la relevancia de este recurso digital en el contexto del creciente empleo global del derecho en los conflictos socioambientales, una tendencia que puede definirse como la juridificación de la política ambiental. El artículo también relaciona la base de datos con debates clave en las humanidades digitales, y analiza los usos potenciales y los desarrollos y desafíos futuros para expandir y mejorar dicho recurso.

**Palabras clave:** extractivismo; juridificación; derecho; justicia ambiental; humanidades digitales

Contemporary extractive ventures have long histories, with roots in sixteenth-century colonial empires and the land and material dispossession thereof (Bakewell 1984; Seed 2001). The expansion of the extractive frontier since the last decade of the twentieth century has not just accelerated at an unprecedented rate but also has come in forms and degrees of violence unseen in the preceding decades and resonant of colonial times

(Svampa 2019). “Ecologies of multiple violences” that are characteristic of some regions have facilitated extractive endeavors at the expense of human rights (Montoya et al. 2022, 59), as well as at the expense of the rights of nonhumans that have recently emerged with force in international law. In this context, governments of different persuasions have turned to the extraction of natural materials as the chief pathway to economic growth and development—a trend labeled “the extractive imperative” (Arsel et al. 2016) or “the commodity consensus” (Svampa 2019).

Industrial mining has been identified as one of the most aggressive extractive ventures for humans and nonhumans. Part of planetary complexes and driven by booms in international demand and commodity prices, the extraction of metals has been one of the fastest-growing extractive sectors since the 1990s, especially in Latin America (Bebbington et al. 2008, 897; Dougherty 2016, 4; Arboleda 2020). It has expanded amid criticisms of its practices, namely the egregious violations of the human rights of local populations that oppose extractive projects in their own territories or adjacent ones (see Global Witness 2022, 11). Industrial mining also contributes significantly to the contemporary environmental crisis. It is held responsible for up to 7 percent of global greenhouse gas emissions and requires vast amounts of water to operate (Delevingne et al. 2020). For these reasons, as the industry has expanded, opposition to it has grown in many regions of Latin America.

In parallel, the law has become a disputed field alongside the more traditional repertoires of action, such as protest. Legal professionals, as well as citizens, civil society organizations, NGOs, and corporations, have resorted to law as the language and grammar of political action in manifold domains, including socioenvironmental disputes (Couso et al. 2010; Montoya 2024a). Increasing recourse to legal strategies in the context of conflicts over mining is partly reactive (see Szablowski 2007; Kirsch 2014; Montoya et al. 2022), but it can also be creative and experimental, as in popular legislative proposals or international law initiatives (see Montoya 2023, 2024a, 2024b) or attempts to roll out rights of nature (see Villavicencio Calzadilla 2019). These actions require thorough documentation and benefit from knowledge of prior initiatives, whether successful or not. Yet data and documentation on such initiatives, when publicly available, are scattered—be they stored in the archives of local institutions or civil society organizations or deposited online on platforms that over time are no longer curated and whose hyperlinks end up breaking.

The initial drive behind *The Legal Cultures of the Subsoil Database* was thus to open possibilities to learn from initiatives that, while most often not judicially successful, introduce novel political pathways or potential avenues to assert rights, pursue and at times redefine environmental justice, or put forward alternative political-legal designs. In what follows, we expand on these juridification trends in Latin America by drawing on the existing scholarship on these processes and explain how our research has led us to devise *The Legal Cultures of the Subsoil Database* (Montoya et al. 2020), including the debates a digital resource of this kind stirs up. We then introduce the database, its goals, how it maps out legal and political actions, and its potential uses. This introduction is followed by an examination of the repertoires of legal actions and artifacts that the database includes, how they may inform research, and potential avenues and challenges we consider for its enhancement and expansion. Overall, we consider the database a resource that may feed into diverse research endeavors led by different communities of practice.

## The juridification of politics in Latin America

The term *juridification* denotes an increased proliferation of law in social and political domains. Such a trend cannot be fully or adequately apprehended by the most widely employed term of *judicialization*, which is rather circumscribed to the increased presence

of, and recourse to, courts and judicial mechanisms (Domingo 2004; Sieder et al. 2005). Seminal work by Habermas already pointed to a “colonisation of the lifeworld” by law and an “increased ‘density’ of law” as means to characterize the expansion of the jural beyond traditionally legal domains and beyond the legal profession (Loick 2019, 208). Indeed, citizens have increasingly taken the law into their own hands. As political disputes over extraction have proliferated, citizens across the globe have framed these through legal languages and grammars that involve courts. Yet they have also gone beyond these mechanisms, such as with endeavors to design popular legislative initiatives or set up of popular courts. So have corporations and states, especially through quasi-legal procedures such as international arbitration or through different forms of criminalization of those opposing mining projects (Lindt 2023).

Juridification can thus involve myriad actors and a range of practices, including the regulation of ever more domains of social life by law, the increasing recourse to law in disputes of a diverse nature, the concentration of power and competencies in the legal domain, and the constitution of forms of legal subjectivity (Blichner and Molander 2008). As increasing juridification has made law proliferate in diverse social and political domains from which it was previously absent, it has contributed to standardizing the language in which certain demands and conflicts are expressed. In this sense, the language of law may be exclusionary of concepts or forms of evidence that do not fit its own ontological framing. Yet, as our research has demonstrated, increasing juridification has also led to attempts to introduce alternative moral values or ontological perspectives in the domain of law (see Montoya, 2024a, 2024b). Rights of nature have also opened pathways for doing so (see Kauffman and Martin 2019).

In Latin America in the latter part of the twentieth century, democratization processes facilitated largely by political struggles, constitutional reforms, and the parallel emergence of human rights laid the groundwork for the judicialization of politics (Domingo 2004; Sieder et al. 2005). This eventually developed into the juridification of many aspects of social and political life, though with regional differences. After the end of the Cold War, human rights became “a global moral lingua franca” as a result of several political, social, and economic transformations that included the neoliberal rollback of the state, increasing globalization, and the emergence of identity-based politics (Goodale 2013, 5–6; Turner 1997, 280–282). Critiques of its Western roots and its ambition of universality notwithstanding, the proliferation of human rights talk in the 1990s fostered forms of hopeful and aspirational politics while constituting the foundation for a broad range of juridification processes or forms of politics that have increasingly been expressed in legal languages and channeled through legal, quasi-legal, or legal-like mechanisms.

Even if human rights are invoked in only some juridification processes, they have nonetheless contributed greatly to legally framing disputes and to legal innovations on emerging entitlements. Human rights thus constitute a vital language of the plural legal constellations that characterize the region and have their roots in its colonial past as much as in postcolonial developments (Benda-Beckmann and Turner 2020). Nevertheless, as Walter Benjamin posited, law is made and enacted through violence. In current juridification processes, this is nowhere clearer than with “lawfare” or the state use of law to discipline citizens (e.g., via criminalization) (Comaroff and Comaroff 2009, 36). This is the case even as citizens have also resorted to lawfare to mimic and counteract the state (Comaroff and Comaroff 2009, 37–38).

Against this background, through two consecutive research projects, we set out to explore the uses of law in the context of conflicts over mineral extraction, which are, after all, conflicts over different forms of worlding or making social and political worlds (see Montoya 2024a). The first, funded by the Economic and Social Research Council and titled *The Legal Cultures of the Subsoil: The Judicialization of Environmental Politics in Central America*, mapped out the manifold uses of law by a range of actors in a selection of disputes over

mineral governance. This project enabled the design and first development stage of the database. Funded by a British Academy/Global Challenges Research Fund award, the second project, *The Juridification of Resource Conflicts: Legal Cultures, Moralities and Environmental Politics in Central America*, explored uses of law within and beyond the courts, focusing specifically on those that are citizen led and introduce alternative moralities or ontologies of territory and nature. This second project allowed further development and expansion of the database.

Our research for the two projects was based on “networked methodologies” that allowed us to identify and engage with the constellation of differently located actors, both geographically and socially, who have been involved in juridification processes (Montoya 2024a). The ethnographic research for both projects thus traced connections between actors and the circulation of ideas, knowledge about law, and legal artifacts among them. It constituted a form of “un-sited fieldwork” (Cook et al. 2009) that does not pursue a holistic approach through multisited research. Nor does it collapse field and place; it focuses on interconnections and movements rather than on locality. The database is informed by both this ethnographic research and extensive consultation of secondary sources and data available online, though scattered through the web. It has been an attempt to digitally map out the wide range of uses of law in the context of disputes over a few paradigmatic cases in Central America and Mexico, as well as to thoroughly document these uses. We now move on to discuss further the value of such a resource and the challenges it raises.

### **Sustainable digital platforms, knowledge-sharing networks, and the information struggle**

In recent years, the field of digital humanities has evolved rapidly, enabling computational developments to become integral to humanities and social science methods, knowledge production, and dissemination. Drucker (2021, 1) argues that the key elements of digital humanities involve “materials + processing + presentation,” where the processing is computational. This approach tends to focus on mining large data sets, such as institutional archives, enabling the detection and presentation of evidence to demonstrate hitherto-unrecognized patterns in documented social and human practices. However, the assumptions of Western scientific epistemology underpinning some of this approach have also come under scrutiny, with increasing debate about the meaning of digital humanities and their role in shaping and disseminating knowledge to either reflect global power inequalities and/or offer opportunities to challenge these (Fiormonte et al. 2022; Santos 2021). This approach broadens the critical consideration of what data is gathered, who by, in whose name and how it is processed, and the status and purpose of the digitally presented results.

In environmental conflicts, there is frequently a struggle over information, much of which now occurs through digital communications (Raftopoulos and Powęska 2017). The power of mining companies resides in corporate resources not only to initiate multiple legal cases in favorable local, national, and international jurisdictions but also to sponsor parallel processes such as lobbying, public relations campaigns, and the preparation and dissemination of favorable information and data. Large multinational corporations are usually focused on providing reassuring reports to shareholders, regulators, and host governments on the positive contributions of their extractive projects and compliance with legal standards. In such cases, corporations can use significant resources, often supported by government agencies, to gather data, encourage community support, deploy expert analysis, and present information to support claims of limited environmental impact, positive outcomes for local communities, and the wider contribution to host country development.

On the other side of this informational struggle is what Svampa (2019) has called the “ecoterritorial turn.” This turn is led by many allied local, national, and international actors challenging not only particular extractive projects but also the neo-extractivist model of development, which, as Kingsbury (2021) notes, governments of all stripes in the region have pursued. These plural alliances reflect the multiscalarity of rural fields. They are networks of diverse actors encompassing local Indigenous, peasant, and Afro-descendant communities struggling to protect their environment, territory, and ontological perspectives, as well as environmental justice groups, feminist movements, trade unions, citizen journalists and scientists, human rights defenders, academics, lawyers and other civil society actors. Network actors operate on the basis of solidarity and commitment to the broad ideas involved in the struggle for environmental justice (Svampa 2019, 54).

These loose but dynamic alliances document and share independent information on the negative impacts of extractive projects and support grassroots social mobilizations opposing their implementation. They often develop knowledge and practice through engagement with diverse legal, political, and social mobilizations. This includes supporting citizen-led measures to gather independent evidence of environmental and livelihood impacts of the projects, assisting legal and legal-like opposition strategies, publicizing community mobilization actions, and denouncing acts of intimidation, smear campaigns, arrests, or attacks in reprisal against those defending their communities’ right to health, well-being, and a safe and healthy environment (Scheidel et al. 2020). The capacity of local communities to insert themselves in these plural alliances of national and international civil society actors is crucial, especially when they lack forms of expert knowledge or certain resources (Reeder et al. 2022).

Sharing knowledge and learning from similar experiences across the region and the world is a key feature of these networks and alliances. Digital communications, such as websites, email, messaging platforms, and other social media, play an important role in facilitating networked relations (Temper et al. 2015). Mexico and Central America continue to lag in reducing the digital divide (UNDP 2022)—particularly the internet access of poorer rural populations. Digital communications nevertheless play an important role in this process. As García-Ruano et al. (2013) illustrate in their work on Mayan socioenvironmental community mobilization, their use can facilitate local participation in isolated communities and enhance their capacity to reach beyond their environs to receive wider national and international support and knowledge necessary to counteract government and corporate decision-makers. It can also mean that these global networks reach more directly into communities with information regarding ongoing conflicts.

The EJAtlas mapping project is a prime example of this initiative, and it has developed a participatory tool for sharing information on environmental resource conflicts on a global scale (Temper et al. 2015).<sup>1</sup> There are also other regionally focused initiatives, such as Observatorio de Conflictos Mineros de América Latina.<sup>2</sup> At the national level, the Observatorio de Industrias Extractivas was established to gather and host independent research on the impact of extractive projects in Guatemala.<sup>3</sup> These are very valuable resources for research on extractive sector conflicts, each of which has its own distinguishing features. In contrast to these, *The Legal Cultures of the Subsoil Database* focuses on the legal and legal-like dimension of conflicts, with in-depth insight on the uses of law by the range of actors involved in such conflicts. However, these resources can be complementary and productively combined for cross-referencing and to produce research

<sup>1</sup> For details on the EJAtlas mapping project, see <https://ejatlas.org>.

<sup>2</sup> Further information on the Observatorio de Conflictos Mineros de América Latina is available at <https://www.ocmal.org>.

<sup>3</sup> Further information on the Observatorio de Industrias Extractivas is available at <https://www.oiegt.org>.

that overcomes potential gaps, biases, outdated information, or periods of lack of funding and moderation that often affect digital resources.

Developing and preserving these tools usually requires funding, hosting institutions, curation, collaboration, updating, and maintenance to ensure their continuing functionality and relevance. Scholars are increasingly considering the sustainability issues of digital humanities projects even as they critically question their complex relationship to “completion” (Brown et al. 2009; Tucker 2022). As yet, there are no clear solutions for these challenges, and they may call into question the utility of such resources if they cease to have the support to be maintained and curated (VandeCreek 2024). Given these inherent challenges, their use in complementary ways becomes all the more relevant. A potential consideration for developing similar databases is linking them up to pool resources and reduce these challenges. This would need to be considered from the outset, as different standards and ways of organizing data might make this complicated once they have already been designed.

Given the scope of the emerging alliances and networks involved in environmental justice issues, facilitated by innovative digital communication practices, there is some potential to partially redress the power inequalities inherent in extractive resource conflicts (Castells, 2013). However, corporate power remains dominant in the multiscale legal jurisdictions involved in such conflicts. For example, “lawfare” is used widely to weaken or defeat local opposition and pressure host governments to maintain favorable regulatory operating conditions for corporations. This is reinforced by the dominant role of *lex mercatoria* in national and international legal systems. The primacy usually granted to commercial law and interests means that other legal norms, such as Indigenous rights, tend to be marginalized or made invisible in judicial and political decision-making (Montoya et al. 2022). Global financial institutions and economic elites promote this hierarchy to create favorable conditions for inward investment in host countries at the expense of protecting human rights.

It is also worth noting that, operating in tandem with this field of informational contestation and lawfare, corporations may use apparently “philanthropic” trust entities, backed with “persuasive” images and text, to “donate” short-term funds to sections of affected communities. This often results in community divisions and may conveniently help undercut project opposition. These measures are frequently accompanied by actions of local allies, such as the state’s instrumental use of police and security forces, as well as judicial actors and mechanisms to apply the law unjustly to detain and prosecute protesters on trumped-up charges. More insidiously, shadowy local actors, sometimes connected to crime groups and other vested interests, use violence or the threat of violence to intimidate and divide local communities to undermine opposition to the extractive projects (Global Witness 2017). All this is facilitated by the “ecologies of multiple violences” (Montoya et al. 2022, 59) that either already characterize the regions where they operate or are developed or facilitated as a result of their operation. The database brings to light some of these practices in the context of the different mining conflicts.

### The legal cultures of the subsoil database

*The Legal Cultures of the Subsoil Database* is an open-source digital and bilingual research resource (Figure 1), available at <https://legalculturesubsoil.ilcs.sas.ac.uk>. It was developed as part of the two anthropology research projects introduced here on the juridification of resource conflicts in Latin America. The database is hosted on the Centre for Latin American and Caribbean Studies (CLACS) website at the School of Advanced Study, University of London. As noted previously, the field of contestation in which resource extraction conflicts take place has experienced increasing juridification. This involves



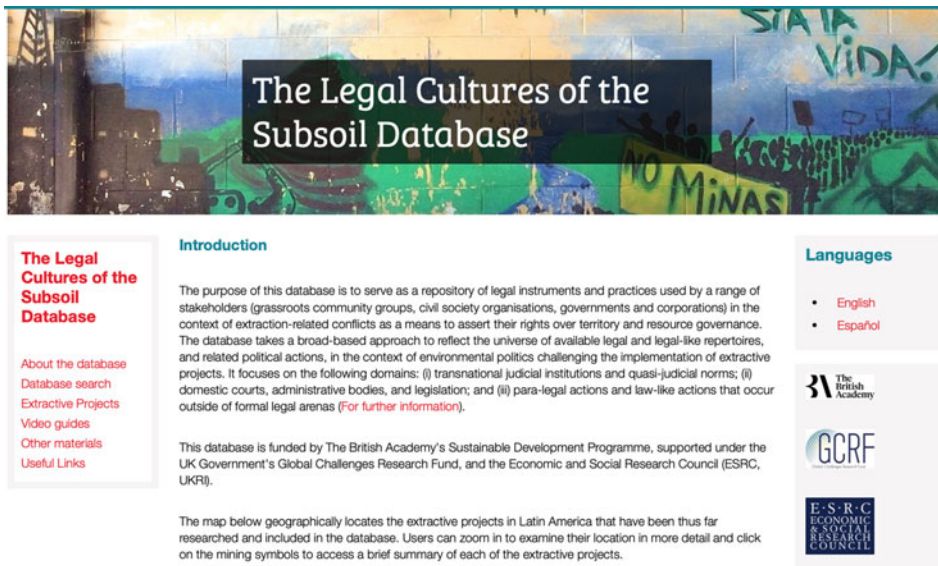


Figure 1. The Legal Cultures of the Subsoil Database home page.

legal and legal-like actions alongside more conventional political actions. *The Legal Cultures of the Subsoil Database* presents and explores this spectrum of actions. However, the database does not aim to develop a comprehensive map of regional conflicts or create a horizontal participatory website, such as EJAtlas. Instead, its goal is to provide an accessible and detailed digital informational resource, in English and Spanish, which maps a limited number of cases in Central America and Mexico that illustrate this complex and diverse set of practices.

The database contains information on eight mining projects in Central America and Mexico, where extractive conflicts have turned particularly violent due to the ecologies of violence that have characterized the region in the last few decades. The mining projects include El Dorado (El Salvador); Cerro Blanco, Escobal, and Marlin (Guatemala); San Martín and ASP1 & ASP2 (Honduras); La Libertad (Nicaragua); and Reducción Norte and Corazón de Tinieblas (Mexico). These were selected as paradigmatic of the increasingly complex and creative field of grassroots political and legal claims making to assert rights over land and subsoil materials appropriated by states and resource-rich corporations. Each mining project has been disputed with uses of law representative of the wide range of mechanisms available, their multiscalarity, and their intimate connection to wider political mobilization. The database also includes corporate and institutional responses to the political-legal challenges to the extractive projects. The database comprises 139 “Legal Action” (including legal-like) and 202 “Legal Artefact” pages, as well as references to 165 “Political Action” pages and links to 144 background reports.

The information comes from ethnographic fieldwork research carried out in each country as well as open-source internet data that brings together publicly available information from diverse media outlets, governmental and nongovernmental reports, academic and other expert research sources, and publications from local organizations representing communities directly impacted by resource extraction. The information included in the database adheres to personal data protection norms, including the UK General Data Protection Regulation. The plurality of sources serves as the basis for summaries of particular actions in the narrative of each conflict, enabling users to focus on specific actions but also to understand and relate these to the developing sociopolitical and

legal events surrounding each mining project. The data was gathered by the interdisciplinary research teams of the two projects with which the database was developed, including anthropologists, law scholars, and a political scientist with a practitioner background.

However, it is important to note that the repository's purpose is not to subject the dataset to computational quantitative analysis to draw systematic conclusions in line with Drucker's approaches to the processing aspect of digital humanities. Instead, it serves as a curated repository of qualitative information related to the conflicts and resulting from direct engagement with many of the actors involved. There are several tools integrated into the platform so users can sort and filter information and carry out searches to identify particular features of the actions involved in the conflicts (see further explanation in the following section). This enables comparisons of similarities and differences, in terms of the legal frameworks and judicial rulings in the respective countries and the different local and international actions and their impacts. These are presented through the eight cases, illustrating the jural's complex and diverse range of uses, which users can access and analyze on a manageable and user-friendly platform. The database also provides links to other resources and primary materials that users can access as part of their research needs and priorities.

The database contributes to the digital communications environment and content available to scholars, lawyers, activists, communities, NGOs, policymakers, and others. It is a resource for understanding, and learning from, the different features of juridification involved in these conflicts, which are also present in socioenvironmental conflicts throughout the Americas and globally. This public engagement with the diverse network of actors involved in researching and participating in movements challenging extractive projects is a key driver to the project's design and development.

Santos (2021) argues that digital humanities resources, such as databases addressing extractive industry impacts and environmental justice, should avoid the academic "colonization" of information by ensuring bottom-up coproduction of data and knowledge. Yet this approach also begs some complex questions about how all forms of knowledge are shaped, moderated, and reproduced, even with extended democratic participation. In our case, the information in the database was gathered and processed by academic researchers working closely and collaboratively with affected communities and a range of local and national actors. However, community representatives did not take a direct role in the production of the database. We reasoned that the objective of the database is to present and make available a range of data on the emerging patterns of juridification in the region, so that the database users, whether academics or community-based researchers, can sift, select, and analyze information on the jural that is rarely easily accessible in accordance with their own interests. This objective required a level of standardization that allows reusing the data in policy, legal, political, or other research processes—a standardization that stands in opposition to and potentially excludes other forms of knowledge.

Nonetheless, we think it is important to continue to consider how approaches that enable wider participation in the production and updating of relevant information may be developed, while ensuring the database remains accurate, well sourced, and sustainable. Crowdsourcing from a diverse variety of sources would enable the maintenance and updating of the database while expanding the number of cases and its geographic reach. There is significant potential for doing so given that violent conflicts around mining extraction and their juridification have occurred in other territories of the Latin American region (see Montoya et al. 2022; Sieder et al. 2022), and indeed, database website analytics have demonstrated considerable interest from outside Central America and Mexico. Yet crowdsourcing would still require curation, which is difficult to maintain without the voluntary contribution of individuals and additional funding, even when institutions are committed to hosting these resources in the long term.



## Repertoires of legal actions and artifacts

The repertoires of contention are the range of actions that social movements deploy and develop to advance their objectives and overcome the inevitable deficits they confront in the struggle with institutional powerholders (Tarrow 1998). The traditional focus of social movement action and academic research is on noninstitutional practices, such as protest, media events, petitioning, and other tactics to influence public opinion and thus sway institutional powerholders. However, as human rights standards and environmental protections have been increasingly incorporated into domestic and regional legal frameworks in Latin America, the scope for citizens, communities, and civil society groups to pursue legal and legal-like actions alongside traditional protest repertoires has significantly opened up. However, as mentioned at the outset, legal actions are not limited to social movements; institutional and corporate actors have also resorted to law in domestic courts and transnational corporate governance mechanisms to protect their interests and weaken opposition using “lawfare.” Meanwhile, legal-like actions, far from being outside formal law and institutional realms, seek to mimic and engage law in different ways. They allow a greater degree of flexibility and innovation while remaining within the domain of law and often aspiring to reproduce the law’s authority, with the potential to reshape law and influence judicial or legislative decision-making (see Montoya 2024a, 2024b).

*The Legal Cultures of the Subsoil Database* is designed to capture these repertoires of legal and legal-like actions involved in each case study. The database operates through three main content type pages: Legal Action, Extractive Project, and Legal Artefact. Legal Action pages broadly encompass both formal judicial, quasi-judicial, and legislative procedures and also “legal-like” initiatives that mimic formal judicial procedures. These actions may not be legally recognized or binding but are situated within the broad legal domain. The Legal Action pages describe the particular legal and legal-like processes involved in each extractive project. These pages are associated with the Legal Artefact pages. The latter contain digital versions of the specific legal texts or documents, such as legislation or petitions submitted to judicial or quasi-judicial bodies, that are related to or are the result of specific legal and legal-like actions. They also include the documents that result from legal-like actions that emulate legal ones. As far as possible, Legal Artefact pages make documents available to researchers through links or downloadable files.

The database search function enables researchers to easily locate specific legal actions, legal artifacts, and extractive projects using keywords and a series of filters (Figure 2). The filters include country, company, natural resource, type of legal action, human rights violated or claimed, and jurisdiction. The Database Search page allows users to perform open-text word searches in Spanish and English. The list of results can be narrowed down by using relevant filters. Alternatively, users can apply filters to the entire dataset, to select legal actions, to legal artifacts, and to the content of extractive projects. In both cases, the list of results allows access to specific pages that contain more detailed information and links on the legal actions (Figure 3) or legal artifacts associated with the projects. Another way to access the information in the database is to go directly to a list of the eight Extractive Project pages via the link on the database homepage. These pages present a summary of the characteristics of each project: (1) general information about the extractive project, such as the current phase, company data, natural resource, extraction method, and other contextual data; (2) a chronological list of all the Legal Action pages associated with the project; (3) a chronological list of some key Political Actions that took place in the context of the conflict over each project; (4) a list of links to database pages with relevant research or technical reports; and (5) the reference sources used to compile the information on the Extractive Project page.

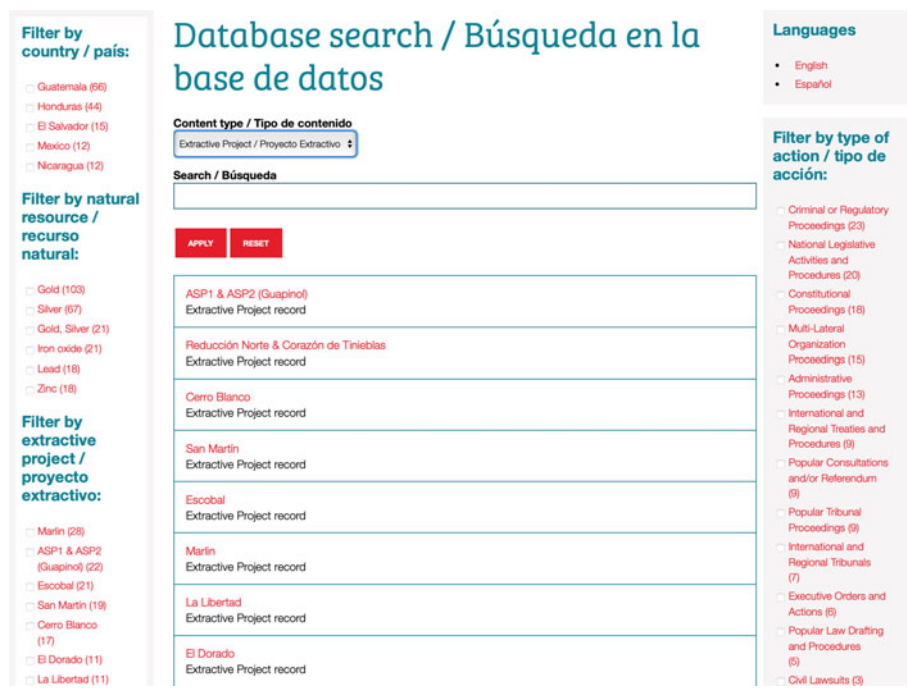


Figure 2. Database search tool with filters.

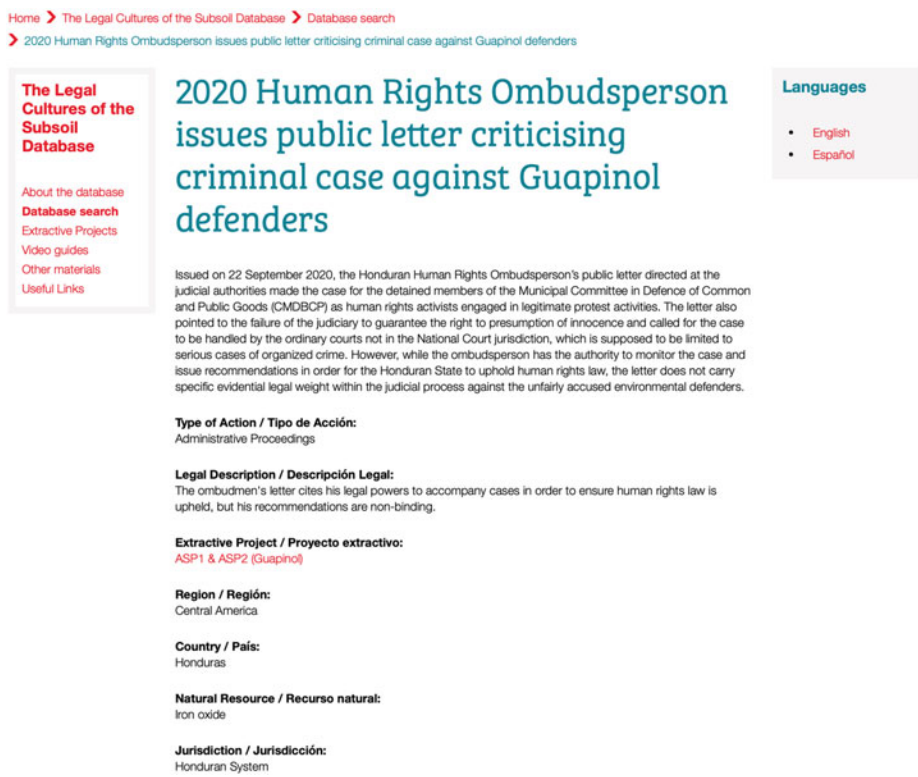


Figure 3. Example of Legal Action page.



**Figure 4.** Interactive Google map locating extractive projects.

Political Action and Report pages are also available on the Extractive Project pages. These provide a brief description and source of the cited information. They are not intended to be an exhaustive reference to all political actions and research or technical reports available on a specific mining project. Rather, they aim to provide certain contextual information about the types of political actions (especially by civil society actors and local grassroots movements and communities) that accompany legal actions and often create the political climate necessary for political and legal changes, such as legislative prohibitions on metal mining and the legal recognition of new or emerging human rights. The Report pages make available key secondary sources on each of the cases or on issues thereof and produced by different epistemic communities (NGOs, grassroots, scholars, state institutions, and so on), serving as a research platform for basic background information as well. Other visual tools provided include an adapted Google map, geographically locating each extractive project in the region and providing hypertext summary information on each case (Figure 4).

We also provide infographic timelines in Spanish and English with thumbnail links on each Extractive Project page. These provide a visual aid that establishes the chronological sequence of key events related to each project, including the political and legal actions. Hypertext links are provided in the timeline entries to allow quick access to the relevant database pages for each action (Figure 5).

Last, there are video guides available in English and Spanish from a menu on the database homepage. One provides a user guide on how to make effective use of the database as a research tool.<sup>4</sup> The second provides a brief and informative presentation for

<sup>4</sup> The database user guide is available at <https://legalculturesubsoil.ilcs.sas.ac.uk/resources/legal-cultures-subsoil-database/video-guides>.

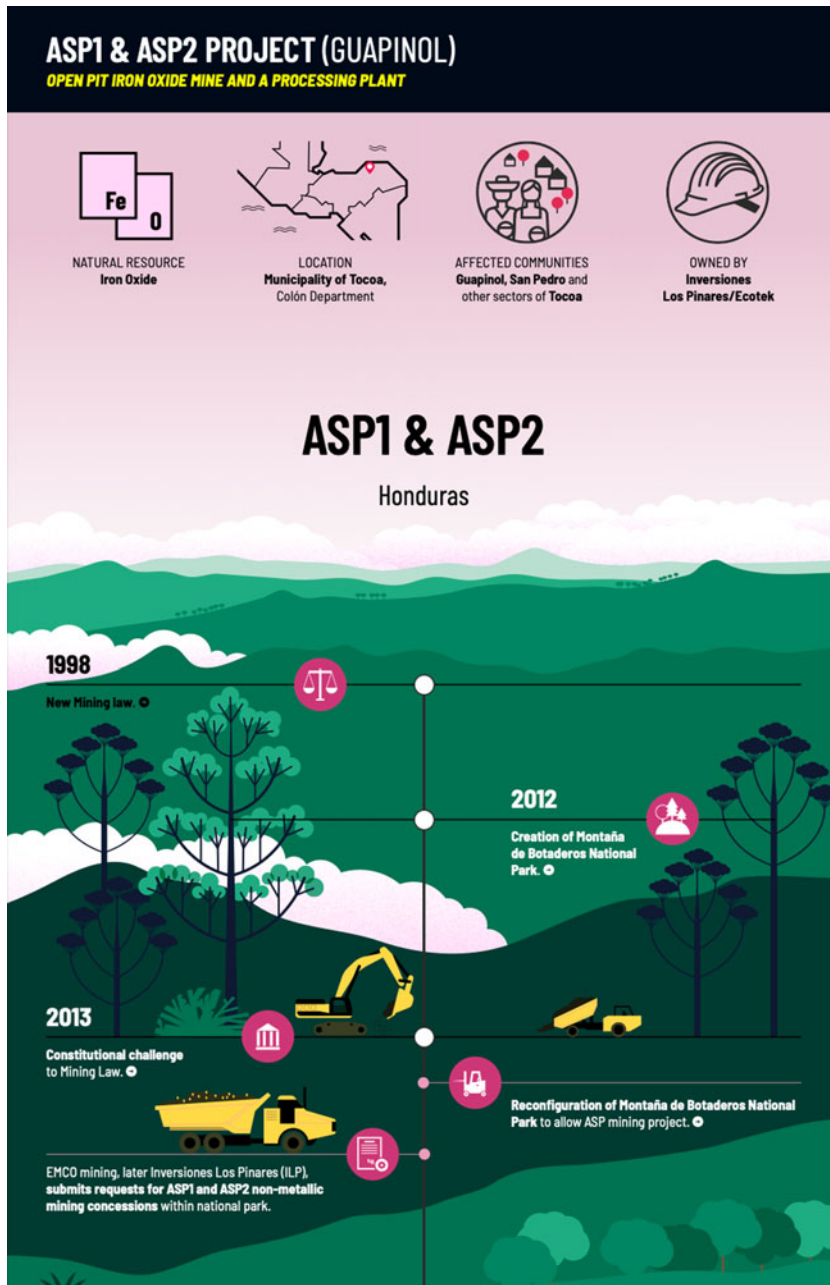


Figure 5. Infographic timeline of extractive project, including hyperlinks to database pages.

wider publics on the concept of juridification and how it applies to the repertoire of actions that constitute the database.<sup>5</sup> Also included on this page is a downloadable infographic poster in both Spanish and English that provides further visual material to

<sup>5</sup> The video introducing the concept of juridification is available at <https://legalculturesubsoil.ilcs.sas.ac.uk/re-sources/legal-cultures-subsoil-database/other-materials>.

explain the concept of juridification.<sup>6</sup> These are resources meant for nonacademics and to support the rationale underlying the database as well as offering guidance on its use.

### Conclusions: Future possibilities for the database

*The Legal Cultures of the Subsoil Database* is an open-access digital repository bringing together and curating a wide range of information and sources to explore and map out the growing practice of juridification in conflicts surrounding large-scale mineral extraction projects in Latin America. It focuses on eight cases in Central America and Mexico to illustrate the diverse and multiscalar forms of legal and legal-like actions that accompany community mobilizations against the implementation of mining projects threatening their lands, health, environment, and forms of worlding. The database thus forms part of the developing interdisciplinary fields of digital humanities, critical legal studies, and environmental justice in which a wide range of academic and practice-based researchers and communities are engaged in analyzing and understanding the histories and implications of environmental resource conflicts in the region.

The database aims to serve as a tool for a wide range of researchers, such as academic, activist, community, and legal practitioners. It provides intuitive access to relevant source materials and documents in relation to each case. Yet it also enables users to filter and select information across the different cases to analyze the parallels and differences in the forms of juridification taking place in relation to each contested mining project. We believe that it significantly contributes to developing informational ecologies that make visible some of the innovative legal and legal-like practices of communities and wider support networks to assert their rights and oppose the imposition of such industrial projects. In addition, it includes and makes visible how this opposition is targeted with a range of legal and nonlegal practices deployed by state and nonstate actors to deter, intimidate, and repress legitimate community resistance. As such, we hope that the database will serve as a resource for those involved in the dynamic and creative processes of developing and studying diverse approaches to the jural in the contested terrain of environmental justice and human rights.

The digital humanities open the possibility of integrating new information technologies into the practice of processing and curating qualitative research information. This can enable diverse researchers to use their skills and interests to dynamically order and filter data to develop their own analysis and research. However, as has been observed, it also poses new challenges, particularly in relation to the inclusive construction and sustainability of digital platforms. In this regard, we are considering how to expand the database and integrate new methods into its development and maintenance. Such considerations include how we might incorporate crowdsourcing features into data gathering and presentation of new information on existing cases and include new mining project cases into the database.

This raises questions that need careful consideration about how contributions would be checked to ensure adequate standards are maintained. It also leads to the wider concern raised by Santos and others on how to democratize and decolonize the process by which information is gathered and presented. This is particularly relevant for the inclusion of contributions from those outside traditional academic settings or alternative information presented in materials that diverge from the conventional legal discourse adopted in much of the sources presently included in the database; for example, the forms of knowledge

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<sup>6</sup> The English version is available at [https://legalculturesubsoil.ilcs.sas.ac.uk/wp-content/uploads/2023/12/JURIDIFICATION\\_ENG-def.pdf](https://legalculturesubsoil.ilcs.sas.ac.uk/wp-content/uploads/2023/12/JURIDIFICATION_ENG-def.pdf).



expressed by some Indigenous people that are not necessarily valued in formal legal practices.

These are some of the issues that we continue to consider in order to develop the database into the future, but of equal importance to this process is meeting the challenge of maintaining funding and institutional support for resources like this that defy the possibility of completion. These issues are constant uncertainties for all enduring research projects. Yet, they are particularly complex in the case of digital tools such as *The Legal Cultures of the Subsoil Database*, as functionality, accessibility, and relevance are continually under threat in a rapidly changing digital environment. Despite these caveats, the database provides a focused mapping of some of the diverse and creative legal and legal-like practices involved in resource conflicts in the region, and we believe it is an accessible and user-friendly resource for a wide range of researchers and practitioners.

**Supplementary material.** To view supplementary material for this article, please visit <https://doi.org/10.1017/lar.2025.10064>

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