

Extractivism triggering new forms of governance for the rights of nature: The case of Northwest Ecuador

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ABSTRACT

The intensification of resource extractivism around the world poses multiple challenges and fosters the development of new governance structures, especially among communities on the frontlines of resource extraction. Through a narrative inquiry based on narrative interviews with local actors and experts, this article centres on governance as a resistance strategy of local, frontline, communities in the Ecuadorian Northwest Pichincha and Imbabura provinces. The narratives give insights into: a) How new processes of governance are triggered by mining conflict and, in particular, how governance is shaped and manifested; b) Governance challenges faced by local governments and communities; and c) Lessons and recommendations for governance and how these contribute to the discussion of post-extractivism alternatives. New governance processes are shaped through socio-organisational processes and the strengthening of associations and civil society organisations; the institutionalisation of private, civil society, and community conservation initiatives; as well as the actions of the organised community to successfully invoke the Rights of Nature (RoN) through legal litigation. Institutional gaps that reflect competing visions of development are seen as governance challenges by local government and community members. Overall, this study highlights the critical role of governance structures and instruments rooted in frontline community perspectives, offering pathways for the development of post-extractivism alternatives.

1. Introduction

Driven by increasing global demand for raw materials, extractivism has intensified globally since the 1990s — supported by transnational companies and governments (Arsel and Pellegrini, 2022). Originally explored in the context of Latin America, the new resource-focused development model known as neo-extractivism, unlike classical extractivism, features greater state involvement and increased legitimacy through enhanced participation of state-run enterprises, higher taxes and royalties, as well as the promotion of redistributive social policies (Gudynas, 2009, 2010). While rent-distribution programs aim at gaining local-level acceptance for extractive projects — thus reducing resistance — they often ignore the right of Indigenous and smallholder farming communities to reject large-scale extractive projects and inhibit

the development of alternative development agendas (Tetreault, 2020). Insights from around the world show how forest landscapes have rapidly changed due to centralized mining, for instance, in India (Bose, 2023), the Arctic (Zachrisson and Beland Lindahl, 2023), the Philippines (Asuncion et al., 2022), and European rural areas (del Mármol and Vaccaro, 2020). Opposing visions of development influence governance practices, often in the form of resistance, especially from communities at the frontiers of extractive industries (see g. Gobby et al., 2022). In this context, resistance refers to different forms of opposition and mobilisation that can shape and influence development patterns (Conde, 2017). The intensification of large-scale extractive practices threatens fragile ecosystems alongside the livelihoods and well-being of Indigenous, rural, and peasant communities by causing displacement and clashing worldviews on land ownership, environmental degradation,

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health problems, economic marginalisation, cultural erosion, and increased violence (Luckeneder et al., 2021; Maus et al., 2022; Hanaček et al., 2022; Sveinsdóttir et al., 2021; Vélez-Torres and Vanegas, 2022).

New forms of extractivism also raise questions about resource governance concepts and instruments rooted in Indigenous and local community perspectives. For instance, a growing body of literature documents Indigenous governance concepts from the Andean communities facing resource extractivism (Vela-Almeida et al., 2018; Valladares and Boelens, 2019). In particular, the inclusion of the Rights of Nature (RoN) in the Ecuadorian Constitution in 2008 laid the foundation for a novel governance paradigm and informs global initiatives promoting the RoN (Kauffman and Martin, 2017; Cano Pecharroman, 2018, see Section 2).

Although several studies point to the role of resistance in shaping resource governance structures and providing governance tools in the context of extractivism, questions remain about how governance as resistance to extractivism emerges, is shaped, and manifests.

Natural resource governance refers to “the norms, institutions and processes that determine how power and responsibilities over natural resources are exercised, how decisions are taken, and how citizens – women, men, indigenous peoples and local communities – participate in and benefit from the management of natural resources” (IUCN, n.d.). Theories of governance, such as Multi-level Governance (MLG) (Marks and Hooghe, 2004; Stephenson, 2013; Jörgensen et al., 2015) and Polycentric Governance (Ostrom, 2010; Jordan et al., 2015; Thiel and Moser, 2019) advance knowledge on a wide range of governance arrangements for coupled social and ecological systems in which multiple governing bodies or levels interact; however, their definitions of problems and proposed solutions are deeply influenced by assumptions, paradigms, and research traditions of the Global North. In practice, resource governance arrangements often do not resonate with the problem and solution framings of communities on the frontlines of resource extraction (Torres and Verschoor, 2020).

Our research focuses on the conceptualisation of governance as a resistance strategy of local communities who stand at the frontlines of resource extraction. Through a narrative inquiry, this study aims to understand how resistance to new forms of extractivism fosters the development of new governance structures and tools in Northwest Ecuador, drawing on the contributions of scholars and the perceptions of local actors and experts. Narratives, defined as stories that include an assessment of a problem, its causes, and proposed solutions, are analysed in narrative inquiry to uncover theoretical insights and conceptual constructs (Roe 1994, 1991, Entman 1993, and Scoones et al. 2019).

Insights into the emergence and manifestation of governance in Northwest Ecuador advance the conceptualisation of resource governance by grounding it in the struggles and realities of local communities, particularly those affected by intensified resource extraction, while contributing to the discussion of post-extractivism alternatives. To position our contribution within existing knowledge, we undertake a literature review on new conceptualisations of governance as a form of resistance in the context of neo-extractivism (Section 2). Subsequently, we use a case study to derive theoretical insight into governance as resistance to mining in Northwest Ecuador (Section 6). Specifically, the narratives provide insights into: a) How new processes of governance are triggered by mining conflict, particularly illustrating the ways in which governance is shaped; b) The governance challenges faced by local governments and communities; and c) Lessons and recommendations for governance and how these contribute to the discussion of post-extractivism alternatives. In Section 7, we integrate these governance lessons into the literature on governance as resistance to extractivism and the discussion of post-extractivism alternatives.

2. Conceptualisations of resistance as governance in the context of neo-extractivism

Rural communities around the world have responded to extractivism

through a variety of resistance strategies aimed at protecting their livelihoods and rights. These strategies include responses in everyday life through emotions, symbolic interventions, and counter-cultures (van Teijlingen and Hogenboom, 2016; Hirsch, 2017; Valladares and Boelens, 2019; Tjandra, 2023). As evidenced in Northwest Ecuador, counter-expertise networks that draw on local experiential, scientific, and legal knowledge is viewed as a strategy to mitigate power disparities in the governance of large-scale mining (Espinosa, 2022).

A number of studies shed light on rights-based approaches to understand how communities perceive centralised mining impacts on their resources and livelihoods, as well as an approach that informs community-led governance and post-extractivism discourses (Heaven, 2019; Bose, 2023). The conceptualisation of the Right of Nature (RoN) has played an important role in informing governance strategies in Ecuador since its inclusion in the Constitution in 2008 (Valladares and Boelens, 2019). The RoN concept, rooted in the Andean Indigenous philosophy of Sumak Kawsay (Good Living), emphasizes living in harmony with nature. In addition to granting rights to nature, the Constitution empowers communities affected by extraction through the right of prior consultation in the case of concessions and state decisions that may affect the environment (Riofrancos, 2020). The RoN has been implemented through various legal instruments such as constitutional lawsuits for the restoration of damaged ecosystems and protective actions against anticipated future violations (Kauffman and Martin, 2017). Additionally, criminal lawsuits addressing environmental crimes, as stipulated in Ecuador's 2014 Penal Code, have been utilized to enforce the RoN (Kauffman and Martin, 2017). This pioneering approach is influencing the international discourse on resource governance, providing a powerful tool to legally empower communities around the world (Cano Pecharroman, 2018).

Several studies highlight the role of the state in constituting the terrain of political struggles and investigate the interaction between the actors involved in the resource extractivism conflict (Avci, 2017; Andreucci and Radhuber, 2017; Mohle, 2021; Asuncion et al., 2022). For instance, Asuncion et al. (2022) show how judicial systems are built not just to suppress mining resistance but also to silence and divide communities affected by transnational mining operations, for instance through financial support and weak regulatory regimes for transnational mining operations. Resistance to certain forms of mining is also linked to patterns of violence, repression, and criminalisation, including armed conflicts (Sveinsdóttir et al., 2021; Arbeláez-Ruiz, 2022). A study of 1,000 sites across 19 Latin American countries reveals that the criminalisation of social protest against extractivism involves state actors using the judicial system to discourage collective action, harass environmental defenders, and restrict their freedoms (Arce and Nieto-Matiz, 2024). For example, corporate and state actors have historically mobilised violence and repression in attempts to maintain social control in Guatemala (Sveinsdóttir et al., 2021). However, communities are often divided when it comes to negotiation of possible benefits from extractive projects and not all projects encounter resistance (Petras and Veltmeyer, 2014; Conde and Le Billon, 2017; Veltmeyer, 2020).

Often, acts of resistance to extractivism, such as protest and occupations, constitute a form of ‘transformative’ governance (see Gobby et al., 2022). Despite the recognition of resistance as a form of governance, questions remain about how governance as resistance to extractivism emerges, shapes, and manifests.

3. Background: Development trends in Ecuador

Since the 1990s, mining exploration activities combined with ‘gold-rush’ discoveries in Southern Ecuador led to a strong interest by major international mining companies. In 2008, Ecuador became the first country to grant nature constitutional rights and to communities the right of prior consultation and protection of communal territories (Kauffman and Martin, 2017; Guayasamin et al., 2021). In parallel, however, a mining mandate reverted the majority of existing mining

concessions to state ownership and allowed mining in protected areas by special request of the President and approval by the National Assembly (Roy et al., 2018). In 2009, the Government authored a new Mining Law that increased regulation on mining companies, which was subsequently modified in 2015 and 2016 to incentivize foreign investment (idem). These changes included decreasing the corporate tax rate and a windfall tax on mining companies (Almeida, 2019). Reactions of Indigenous groups, peasant communities, and civil society organisations led to the arrest of Indigenous leaders and censorship in the form of closure of several civil society organisations and environmental NGOs (Kauffman and Martin, 2017; Villalba-Eguiluz and Etxano, 2017). As noted by Riofrancos (2020), the contradictions of the law in relation to the right to prior consultation and protection of communal territories, recognised in the 2008 Constitution, and the parallel expansion of mining concessions in protected forest areas, have reinforced the historical struggles of Indigenous movements in Ecuador. Between 2013 and 2017, faced with a fall in oil prices and an economic slowdown, the country reinforced its efforts to attract foreign investment in large-scale mining. The central Government is beneficiary and executor of the income from non-renewable resources in the territories, while these changes were to the detriment of transfers to subnational governments (Almeida, 2019). Since 2017, the role of the private sector has been strengthened (idem) and industrial mineral extraction has started in several protected areas and on Indigenous territories (Vela-Almeida et al., 2018; Valladares and Boelens, 2019). Mining is the economic activity attracting the most foreign capital to Ecuador, ranking fourth in Ecuadorian exports, after oil, bananas, and shrimp. Gold and silver exports increased by 107 % between 2022 and 2023 (BCE, 2023).

4. Case study

The study area is located in the montane forests of northwest Pichincha and Imbabura provinces (Fig. 1). The lowland wet forest of

western Ecuador is recognised as one of the “Critical Hotspot Areas” (Myers, 1988), an area of high biodiversity wilderness and a biodiversity hotspot, not only for its species richness but also for its associated cultural diversity (Mittermeier and Rylands, 2018; Guayasamin et al., 2022).

The history of extractivism in the two provinces is marked by mining governance events at the local and national levels as well as by governance initiatives by local environmental protection groups and communities that developed in response. Conservation legislation in the study area mostly dates to the 1980s and 1990s, when conservation practitioners, conservation agencies and international organisations actively promoted conservation programs (Coral et al., 2021). For instance, several protective forests were created in the 1980s. Since the 1990s, several agricultural cooperatives expanded their activities to community tourism, scientific and educational activities, and organic agriculture.

The first mining conflicts in the study area can be traced to 1990, when the Mining Development and Environmental Control Technical Assistance Project (PRODEMINCA) was proposed by the Ecuadorian Government, with assistance from the World Bank, the British development agency, and the Swedish development agency (The World Bank, 2001). PRODEMINCA was implemented in 1993 with a loan of US\$ 14 million to attract new private mining investment and support mineral production in a sustainable manner (The World Bank, 2001). However, the opposition of DECOIN (Defensa y Conservación Ecológica de Intag), an Ecuadorian NGO representing local residents and the Association of the Coffee Growers of Rio Intag, among other organisations, raised concerns about the development of mining activities, arguing that it would threaten biodiversity and harm protected areas and their buffer zones, thereby triggering severe social problems within their communities (The World Bank, 2001; Zorrilla, 2021). Since then, the Llurimagua mining project of almost 4,829 ha, located on the west flank of the Western Cordillera in the area known as Cordillera Toisán in the

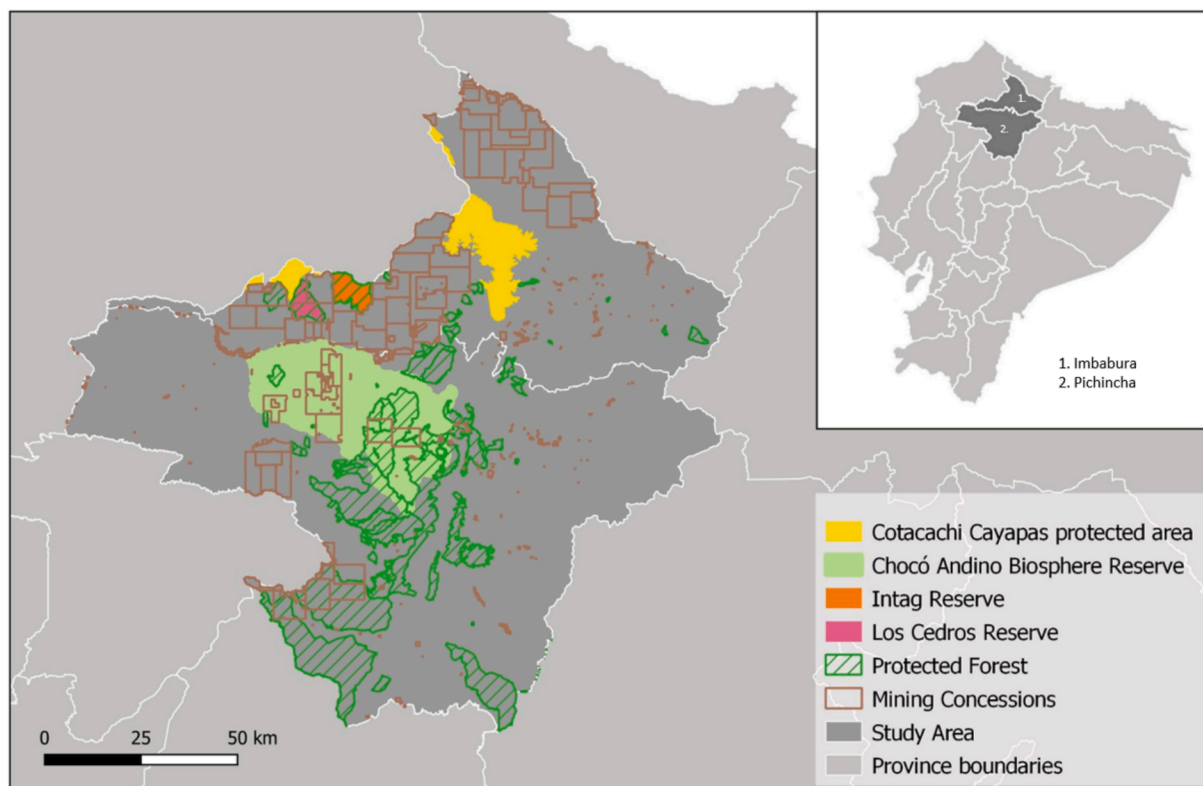


Fig. 1. Study area located in the montane forests of Pichincha and Imbabura provinces, Ecuador. Sources: MAAE, 2017; MRAG, 2020; GADM, 2022; MCA, 2022; MAAE, 2023.

province of Imbabura, constitutes the third attempt to establish mining activities in the region (Zorrilla and Sydow, 2021). Two previous companies had to abandon the prospecting and exploration due to the determined resistance of the communities and organisations in Intag (Zorrilla and Sydow, 2021). In October 2020, Ecuador lost a constitutional judgment based on the probable impacts that mining would cause to endemic and critically endangered species on the Llorimagua concession (Zorrilla, 2021). However, the trial was rejected on appeal due to trial court procedural errors. In 2021 and 2022, new Constitutional actions were prepared and the case was passed to international authorities. While writing this manuscript, on March 29, 2023, the Imbabura Provincial Court ruled in favour of the communities and the nature of Intag, revoking the environmental licence granted by the Ministry of Environment in 2014 and requiring, among other actions, prior consultation with the affected communities (Acción Ecológica, 2023). Similarly, in 2017, the Ecuadorian Government granted a mining concession in Los Cedros Reserve, located in the Imbabura province, to the Canadian company Cornerstone Capital Resources (Prieto, 2021). However, in December 2021, the Constitutional Court ruled that Los Cedros should be protected from activities that threaten the RoN (Los Cedros, 2023).

Likewise, in Pichincha province, the national company ENAMI EP explored the area of Pacto and Gualera, part of the Chocó Andino Biosphere reserve located 70 km north of the country's capital, where gold and silver concessions are located. This project would allegedly generate jobs through mining labour, related services, and accommodation (ENAMI EP, n.d). This is not the only company in the Chocó Andino Biosphere Reserve; according to the existing mining cadastre, within the Chocó Andino Biosphere Reserve, created in 2008, there are 21 concessions granted or in the process of being granted to private and national companies (ARCOM, 2008). In March 2021, activists, peasant communities, the parish council, and members of the Mancomunidad del Chocó Andino requested a consultation with the Constitutional Court to prohibit mining activity in the Chocó Andino; this request was approved in 2022. In August 2023, in a referendum Ecuadorians voted against mining in the Chocó Andino Biosphere Reserve (Cardona, 2023).

5. Method

This study takes a narrative inquiry approach, based on narrative interviews. Narratives are defined as storylines that start with a *beginning*, typically a problem definition, a *middle*, typically an assessment of causal agents and their effects, and an *end*, typically a proposition of solutions and likely effects (Roe, 1994, 1991; Entman, 1993; Scoones et al., 2019). In narrative inquiry, the researchers aim at locating theoretical insights, framings and conceptual constructs within a participant's narrative (Entman, 1993). In the results section, narratives are presented as storylines, with quotations (raw data) included for the sake of fidelity, for instance, in expressing moral judgements. Although this study relies on the perceptions of local actors and experts interviewed for this study as the primary data source for the qualitative data analysis, events and historical data were factually cross-checked against additional sources, including policy documents, scientific literature, news reports, and reports.

The selection of participants followed theoretical sampling. Theoretical sampling enables analysts to follow the concepts that emerge during the first interviews and to maximize opportunities to develop these concepts further in subsequent interviews until the point at which no new concepts emerge (theoretical saturation) (Corbin and Strauss, 2015). Twenty-five interviews were carried out between September 2020 and April 2021. All participants were local actors and experts who have contributed to the emergence of local governance structures in the study area. The participants included land owners; conservation practitioners; representatives of corporations of private forests and reserves; community agrotourism federations and agricultural cooperatives; local government representatives at regional, provincial, municipal, and

parish levels; local community leaders; as well as representative of non-governmental organisations, environmental protection groups, legal observatories for human and nature rights, and women producer associations. During unstructured, in-depth interviews, we asked participants to report their experiences related to governance of protected areas in an extractivism context and to reconstruct historical events. Interviews lasted an average of one hour and were audio-recorded after informed consent was obtained. Interviews were coded inductively to generate theoretical insight from the data. After the first data were collected and analysed, the resulting concepts provided the basis for subsequent exploration.

Limitations of this study include the fact that the narratives reflect the perspectives of local actors and experts who have contributed to the emergence of local governance structures in the study area, and draw governance lessons from their experience. Hence, these narratives do not reflect all the mining positions of all the stakeholders involved in the mining debate, for instance those of the mining proponents and mining-sceptics. In addition, the list of events narrated in this article are indicative and do not constitute an exhaustive list of events and initiatives at the national or provincial levels.

6. Results: Narratives of resistance to mining and the emergence of new processes of governance

Following a narrative approach, we start this section with exemplifying how new processes of governance are triggered by mining conflict, specifically illustrating the ways in which governance is shaped (6.1), and narrate governance challenges faced by local governments and communities (6.2). Finally, lessons and recommendations for governance were elicited from this study participants' narratives (6.3) (see Fig. 2 for a conceptual summary).

6.1. New processes of governance triggered by mining conflict

This section exemplifies three main governance processes triggered by the mining conflict: a) Socio-organisational processes and strengthening of associations and civil society organisations (6.1.1); b) Institutionalisation of private, civil society, and community conservation initiatives (6.1.2); and c) Actions of the organised community to successfully invoke the RoN through legal litigation (6.1.3).

6.1.1. Socio-organisational processes and strengthening of associations and civil society organisations

As study participants pointed out, several associations and civil society organisations emerged as a resistance strategy of the communities in Northwest Ecuador. For instance, DECOIN, a grass-roots environmental organisation, was established in January 1995 to protect the cloud forests of the Intag region in northwestern Ecuador due to the presence of national and transnational mining companies.

In the Imbabura province, in 1995, socio-organisational processes were initiated in resistance to the threats posed by the expansion of mining activities in the study area. This socio-organisational processes gave rise to several peasant organisations and producer associations, including the Association of Small Coffee Growers Rio Intag (AACRI), founded in 1998. As an AACRI member said, it constitutes an alternative to extractive industries and brings forward a proposal for sustainable development in the area.

The promotion of coffee growing culture in our area was born as an alternative to the presence of transnational companies... all these initiatives that we have started here in our territory, in addition to coffee and other productive projects, are actually a response to environmental threats, because the fight that we have been carrying here in Intag, it is not only a resistance fight or protest in the streets but it is also a struggle with a proposal for economic development.... (Member of producer association, I:23)

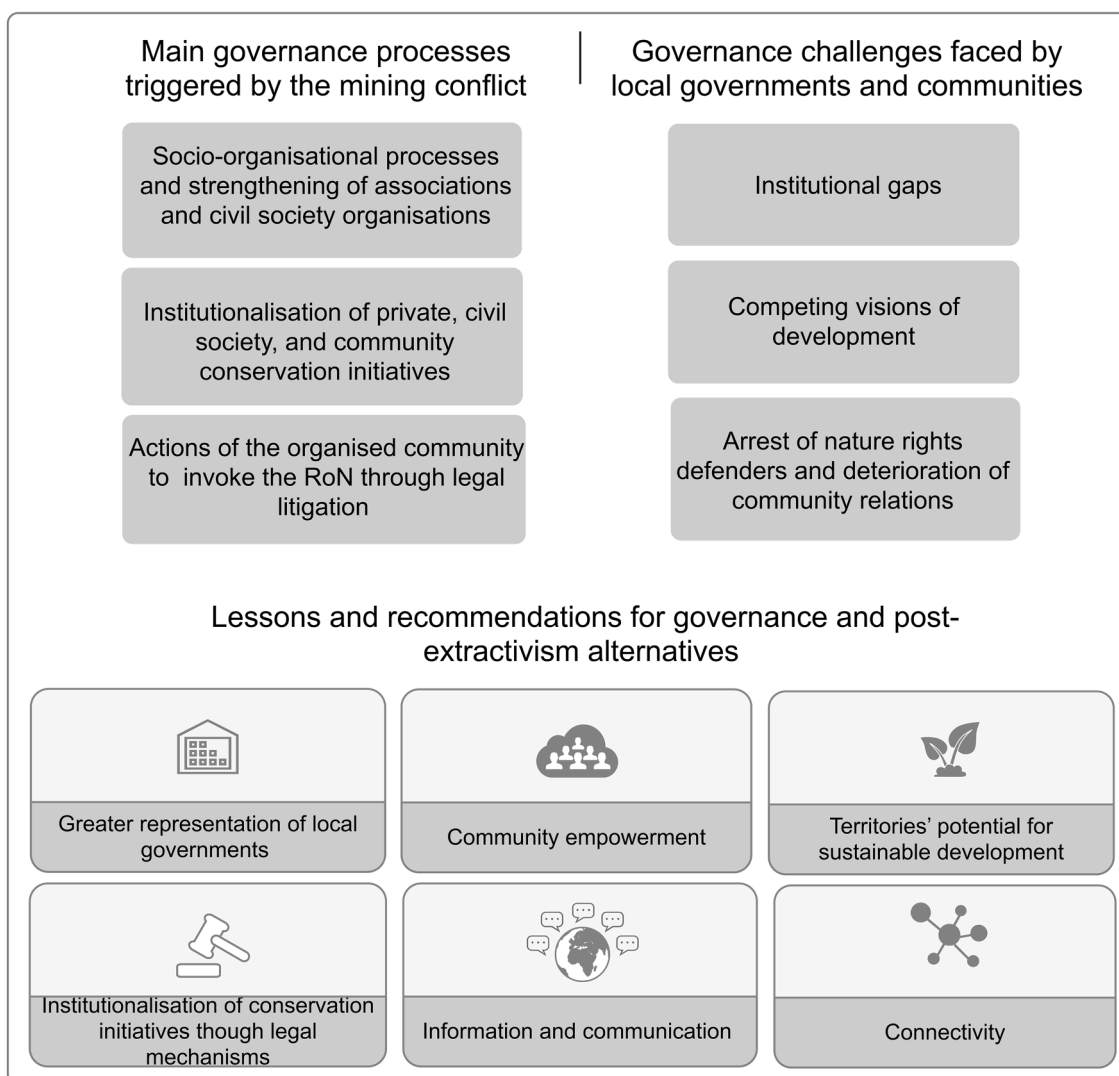


Fig. 2. Conceptual summary of research findings.

Similarly, the Mining Social and Environmental Observatory of the North of Ecuador, (OMASNE), a social and environmental group, was created to support and educate communities in Ecuador not just on their right to consultation but also the impacts of large-scale mining on the environment and the watersheds these communities rely on. As one member narrated:

at the end of 2016... OMASNE was created.... this idea of an observatory, based on technical information, motivated by the constant violation of constitutional rights and human rights caused by the imposition of these [mining] projects that have extremely strong impacts... so it is what the observatory figure has tried to do, to inform people, to share information and accompany communities.... (Member of environmental group and human rights expert, I:12)

Socio-organisational processes in the area have also contributed to the strengthening of women organisations. For instance, the Women Association of Agricultural Production El Rosal (Asociación Artesanal Femenina de Producción Agrícola El Rosal; ASOFEPAR) was founded in 2004 in the Intag area to jointly face the challenges brought by the mining activity in the area and contribute to alternative income creation for the community.

...in the year 2000 we decided to organise ourselves ...it has been a process of learning and undertaking because since 1996 more or less,

mining has been causing problems for nature and also for society in general, for people, to face that, here in Intag, we have seen the need to group together, to unite and try to obtain or create sources of income for women, so in the face of this extractivism, there are also organisations that contribute financially to both the State and the family economy here in Intag. (Member of producer association, I:22)

The non-profit organisation Ecuadorian Coordinator of Organisations for the Defense of Nature and the Environment (CEDENMA), founded in 1988, has been acting as a bridge between the central government and civil society organisations and communities.

6.1.2. Institutionalisation of private, civil society, and community conservation initiatives

Participants in this study indicated that efforts of decentralised autonomous governments (local governments), communities, and private landowners include the so-called Conservation and Sustainable Use Areas (ACUS), whose purpose is to conserve biodiversity and develop sustainable activities to guarantee the maintenance of ecosystems services. Within the Municipality of the Metropolitan District of Quito, Pichincha province, several protected areas have been declared with the management category of ACUS. These include the Yunguilla ACUS (2,9812.00 ha) declared in 2013; the ACUS Pachijal (15,881.89 ha) declared in 2012; the Mashpi-Guaycuyacu-Sahuangal ACUS (17,236.93

ha) declared in 2011; and the Cerro Puntas Wetlands Protection Area (28,212.6 ha) declared in 2014 (Carrera et al., 2016). In addition, based on the recognition of the RoN, the Ecological Corridor of the Andean Bear (64,554 ha) was declared as a mechanism to conserve and protect the habitat of the Andean bear, an emblematic fauna species, and other associated species of the Andean forests. Subsequently, in the northwest of the province of Imbabura, the Intag-Toisán ACUS (ACUS-MIT) was created in 2019, comprising 126,967 ha of forests, rivers, and agricultural lands (ACUS-MIT, 2019).

We have been working with governance issues since 2006 but what happens is that there is another issue that triggers environmental governance and the need to organise in platforms, it was mining [already] in 2009... So that's when we started to organise ourselves and that's when we proposed the first Area of Conservation and Sustainable Use in Ecuador, the ACUS, it was born here, in the Pachijal river, from the mining conflict, right after the new Constitution came out (Local community leader, I:16)

The process that led us to define the ACUS-MIT is the sum of all the processes, that is to say, here all the local development initiatives that have been proposed by organised groups, all the processes of resistance and defense of the ecosystems come together – of biodiversity, of water – that had been made by the communities in this case to face mining... what has been done these last 4 years is that we entered into a process of generating a normative tool at the local level that allowed us this declaration, to create the conservation area.... (Local Government representative, I:13)

As participants of this study recounted, in 2017 a proposal was prepared to obtain the recognition of the 286,805 ha Chocó Andino de Pichincha Biosphere Reserve by the United Nations for Education, Science and Culture (UNESCO). The reserve, located in Pichincha province, was officially declared in 2018. However, as participants of this study explained, this process has a decades long history.

we allied ourselves with “the provincial council” but the first intention is that this Biosphere reserve allows us to eliminate the mining concessions from the reserve areas, from the core area where the spectacled bears live, where the otters are, where the roosters of the rock lives, where the water is coming from for the 18,000 people who live here... it helps us to strengthen our processes, our territories and our processes of local and environmental governance, and our struggles in the territory. (Local community leader, I:16)

Moreover, since 2008, the institutionalisation of private, civil society, and community conservation initiatives was supported by legal innovation and institutional change associated to the RoN, as described in the section that follows.

6.1.3. Governance through legal mechanisms

As participants noted, in 2017, Ecuador granted the state-owned enterprise ENAMI EP and, later, its Canadian partner, Cornerstone Capital Resources, two mining concessions along with the required environmental permits within the Los Cedros reserve, located in the Imbabura Province. In 2019, local environmental protection groups won a legal case for protection of Los Cedros. Cornerstone immediately appealed the ruling, bringing the case to the Constitutional Court and, in November 2021, shortly after concluding the interviews for this study, the Constitutional Court affirmed protections of Los Cedros in recognition of the RoN, meaning that the Ecuadorian government must revoke mining permits granted for exploratory operations within the reserve. As recognised by the experts and actors participating in this study, success stories, such as the legal protection of Los Cedros, bring opportunities for conservation actions through legal litigation.

legal litigation has also been a tool that we have begun to use with more force because we see that there is a little more openness or independence from the judges to rule for the Rights of Nature, for just environmental

causes... the initiatives come from the organised civil society sector that leads conservation initiatives... conservation initiatives are now turning to the courts and they are yielding some positive results. (Representative of non-governmental organisation, I:7)

Despite the growing interest of scholars and activists on the RoN and related conservation opportunities, local governments and communities face numerous governance challenges, as described in the next section.

6.2. Governance challenges faced by local governments and communities

Participant's narratives give insights into governance challenges faced by local governments and communities, including a) Institutional gaps (6.2.1); b) Competing visions of development (6.2.2); c) Arrest of nature rights defenders and deterioration of community relations (6.2.3).

6.2.1. Institutional gaps

As participants of the study brought up, despite a progressive Constitution, state claims of subsoil rights create institutional mismatches between governance generated by resource user communities and governance adopted at a national scale, hindering local conservation and undermining the rights to a healthy environment based on the RoN. In addition, conflict over competences and responsibilities of different government levels are perceived. As an expert explained:

Some municipalities are very concerned about mining projects in their territories, they have tried to exercise their rights based on their competence. For example, in the case of municipal governments, within their competence is to provide water for human consumption, in the Intag area... these mining activities are directly threatening the water sources... but unfortunately... at the legal level, although we have a very progressive Constitution, there are a lot of legal gaps or contradictions, for example, on the issue of land use, the subsoil is the responsibility of the state. But to access the subsoil there is a soil impact... so there are a lot of contradictions and confrontations from that... the state wants to impose mining at any cost, in any case, and always in the face of these contradictions they try to evade the rights or powers that local governments have, either municipal, parochial, or provincial... (Member of environmental group and human rights expert, I:12)

As pointed out environmental consultation must proceed in the case of authorisations and state decisions that may affect the environment, for instance related to medium and large-scale mining activities. The environmental consultation must be prior, free, and informed, carried out prior to the issuance of the environmental registration and before the issuance of the environmental licence. Its application is a non-delegable obligation of the Ecuadorian state, as observed by experts participating in this study.

one of the most important issues that exist in the collective rights of communities is the right to prior consultation for an exploitation, for an extractive activity, it is not fulfilled in almost any case, we have there archived a lot of cases in which the state is sued for not having consulted the community, then their rights are not fully respected. (Representative of non-governmental organisation, I:5)

As the inhabitants of the areas were not consulted, many realised these areas were licensed for mining only when the exploitation started, as they mentioned, since most of the exploration activities were “secretly” undertaken.

everything started when we realised that dump trucks, mules full of material were passing by..., at night... in the early morning, so we realise that they are really doing exploitation, not exploration there, that's when we realised and the concerns of the people began... we began to investigate... we hired a lawyer and we followed up and we organised..., from there we started to act... (Member of producer association, I:24)

As narrated by the participants of this study, the economic crisis resulting from the Covid-19 pandemic increased the pressure for economic and political reforms to support 'sustainable' resource management. However, competing visions of development are seen as a challenge by participants in the study.

6.2.2. Competing visions of development

As several of the participants reflected, the Covid-19 pandemic was seen as an opportunity to reflect and re-think the current economic model. However, there was a clear focus on promoting extractive activities as a way to confront the resulting economic crisis and recession. As participants of this study observed, this discourse constitutes an important constraint for community-based conservation. For many, there is an urgent need to rethink development models based on extractive activities due to its high social and environmental impacts.

The vision should go towards defending what is our greatest wealth... there are many people who are interested in conserving this area... but when you want to connect territories... you cannot because you have these gigantic pressures... in Ecuador, in general, the central government is not really convinced of what path it wants to take as a country... the amount of resources that you invest in extractive activities if you invest them in the small producer, in the solidarity economy if you invest it in community tourism, if you invest it in community ventures in agroecology and others, in the long run you get much more resources for the state than the extractive industry itself, generating a much more equitable process since the distribution of wealth is much higher. (Representative of non-governmental organisation, I:5)

6.2.3. Arrest of nature rights defenders and deterioration of community relations

As testimonies of expert and community members highlight, mining development processes in the area have been marked with the arrests of nature rights defenders and with violent crackdowns by Ecuadorian security forces on protesters. An inhabitant of the canton García Moreno in the Imbabura province narrated how a process of radicalisation of resistance against mining developed followed by the arrest of human rights defenders.

there were many clashes with the company, once they burned a company camp but that was creating more conflict and more conflict until when, before the President arrives, we had already evicted the company from that sector but when he arrived, I recall the President sent about 300 policemen and machinery [to escort some hired technicians of mining companies] bribed the parish government, and bribed people, and they entered by force¹... it is conflictive because what companies do is reach the towns, hire people who have influence in the town who can convince other people such as the presidents of the communities and people who have more influence, then, that causes conflicts among community members, among families... (Local community leader, I:15)

Expert testimonies and testimonies of members of the community give insights into the community dynamics in the initial phases of exploration. Social impacts are perceived and documented in form of fragmentation and deterioration of community relations.

when [mining company] entered the area, we were in the process of forming a committee to co-manage with the leaders of the three

communities so that there is a more participatory and more formal co-management and they directly hired the three presidents of the communities that were part of the co-management, that is, they directly offered them jobs, they offered money to the leaders, to the people who most oppose them... they generate an extremely strong social impact by dividing the communities, families including couples, husbands, wives, parents, children... they are effective in that because they know that if the community is divided it is difficult to organise an opposition to an extractive project. (Member of environmental group and human rights expert, I:12)

6.3. Lessons and recommendations for governance

The study participants reflected on several lessons and recommendations from decades of governance for the RoN (see Fig. 2). These include: a) Greater representation of local governments and communities to generate policies that are grounded in the territory; b) Community empowerment and use of natural areas is an effective conservation tool; c) Attention to the territories' potential for sustainable development; d) Institutionalisation of private, civil society, and community conservation initiatives through legal mechanisms and decision making tools; e) Information and communication are perceived as powerful governance tools; f) Connectivity and know-how generated in one area can serve as an inspiration for other areas.

As study participants pointed out, there is a need to promote greater representation of local governments and communities as well as to take citizen initiatives into account in order to generate policies that are grounded in the territory and that respect Indigenous and community worldviews. As a study participant stated, "environmental governance helps you to generate public policies that are grounded in your territories, your cosmovision, your communities, but if you do not also have a plan for the use and occupation of land, a management plan, you cannot territorialise [ground] the public policies for which you fought for" (Local community leader, I:16).

Moreover, governance lessons show that community empowerment is an effective conservation tool. As participants of this study stated, the main pillar of governance for the RoN is community empowerment.

Well, precisely for me it is the only way that the conservation of areas in Ecuador can be guaranteed in the long term because we can have national parks, that is, paper parks here are overrun and are invaded, now there is mining in many national parks but it does not happen where one drinks the water and since some areas are collectively managed, the community is not going to let others get in to damage the water, it is their forest..., it was a weapon, a very effective tool. (Representative of civil society organisation and local community leader, I:14)

Moreover, the importance of drawing attention to the potential that territories have for sustainable development was mentioned; as participants claimed, the development of the existing agricultural value chains, like organic sugar and coffee, should be a priority.

grew up producing panela, my parents are also panela producers. I have seen the quality of the product evolving.... we are already going through the second, third, fourth generation... and that and that makes the culture here of Pacto..., there are cane fields that are more than 50, 60, 80 years old and continue to produce. So, for us, that is, we have a product that regenerates itself, which is sustainable, productive and sustainable... and we do not want to lose that legacy... we were not born to be stevedores, to carry material to hit it with the pick and make holes because there are many alternatives here in our parish... (Member of producer association, I:24)

Participants of this study emphasized the crucial need to break the paradigm that rural areas and agriculture are not profitable. Participants noted that despite an ageing rural population, it is possible to create productive and profitable enterprises, adopt new technologies, use

¹ These events are reported by a number of civil society organisations and independent media (see OLCA, 2014; Colectivo de Investigación y Acción Psicosocial Ecuador, 2015). A commission of human rights observers undertook an in situ visit to the region and determined that the police presence was restricting rights such as freedom of movement, freedom of expression, and freedom of association (Amnesty International, 2015), psychological and social impacts such as fragmentation and deterioration of community relations were also assessed (Colectivo de Investigación y Acción Psicosocial Ecuador, 2015).

modern communication mechanisms, and integrate into global economies through sustainable projects that respect both the rights of nature and local communities. A regular argument favouring mining in Ecuador is that there are no economic alternatives; however, as participants said, these rural territories have a great potential for sustainable development, for instance through the development of the agricultural sector.

here what is being sought through the campaigns carried out by the transnationals, both oil and mining, is to sell an idea that there is poverty, that there are no sources of work and it is quite the opposite, for example our area has a high range of production of fruits, coffee, that is, our area is so rich in production, there are sources of work, unfortunately what happens, in our country, is that there are no policies to promote the agricultural sector, so that makes people in a certain way vulnerable to the issue of mining, but on the other hand we have an impressive agricultural productive potential in our territory. (Member of producer association, I:23)

Study participants claimed that conservation processes in the study area have been significantly shaped by private, civil society, and community conservation efforts through self-management; for instance, through ecotourism, educational and scientific activities, and networks. However, the “absence of the state from the rural areas” is also seen as an opportunity to allow for the emergence of bottom-up governance processes.

...basically there is no Ecuadorian state in rural areas, it is totally abandoned, they do not have the capacity to, for example, regulate the issue of mining, weapons, drugs, which all go hand in hand, the effects of the pandemic, but there are also opportunities that when the state does not get involved, people also begin to organise, and organise ourselves with more strength... precisely to protect our territory but also to look for alternatives. (Local community leader, I:16)

Since the beginning of the conservation trend in the 1990s, conservation networks expanded through scientific praxis, mechanisms, and decision-making tools. Since the new Constitution entered into force in 2008, legal litigation is a central resistance component. In fact, conservation initiatives are turning to the courts, where the openness and independence of judges to rule in favour of the RoN is observed, as described in [Section 6.1.3](#).

Another powerful lesson is related to “connectivity”, meaning the realisation that “Nature [is] beyond administrative levels and sectors,” as participants claimed. This realisation motivated the creation of protected areas, conservation corridors, and multi-tenure reserve networks, such as biosphere reserves, that transcend administrative boundaries as observed in [Section 6.1.2](#). In addition, multi-stakeholder and multi-sectoral alliances and synergies have been generated through governance, integrating several communities, peasant organisations, associations of agroecological producers, ecotourism networks, and civil society organisations.

Finally, our findings stress that information and communication are a powerful tool to inform communities about their rights. Information also serves to support communities in their organisation and articulation with other territories that face the same challenges. Further, know-how generated in one area serves as inspiration for other areas. As participants noted, many of the initiatives that have been promoted in Northwest Ecuador serve as inspiration and a source of knowledge for regions and local governments across Ecuador, with implications for the conceptualisation of governance for the RoN globally.

7. Discussion

Resistance to extractivism has been linked to resource governance in several ways, particularly highlighting the ‘informal’ ways in which local communities influence decision making, for instance through open confrontation and every day acts of resistance, and the role of states in developing contemporary extractivism (see [Section 2](#)). This study aims

to understand how resistance to new forms of extractivism fosters the development of governance structures in Northwest Ecuador, and how this governance is shaped and manifested. Moreover, the narratives that we elicited provide insight into governance challenges faced by local governments and communities from which important governance lessons can be drawn. In this section we discuss the conditions that foster new forms of governance triggered by mining conflict (7.1), governance challenges faced by frontline communities (7.2), and, finally we will elaborate on the contributions of this study to post-extractivism discourses and local resource governance (7.3).

7.1. Conditions that foster new forms of governance triggered by mining conflict

As observed in this study, governance processes triggered by the mining conflict include: a) Socio-organisational processes including the strengthening of associations and civil society organisations; b) Institutionalisation of private, civil society, and community conservation initiatives; and c) Efforts of the organised community to successfully invoke the RoN through legal litigation.

The creation of the Chocó Andino de Pichincha Biosphere Reserve and several ACUS conservation areas (see [Section 6.1.2](#)) was in response to the need to provide a regulatory framework that contributes to override otherwise permitted extractive land-use activities. Greater participation by Decentralised Autonomous Governments (GADs) combined with existent private and community conservation networks, strong local conservation leaders, synergies across sectors, spaces, and between stakeholders, as well as the increasing openness of judges to rule for the RoN were pre-conditions to foster new governance arrangements. Likewise, as noted by [Gobby et al. \(2022\)](#) by analysing several cases of environmental conflict in Canada, forming alliances and fostering relationships among a diverse range of actors enhances the chances of achieving transformative governance and serves as a crucial resistance strategy. As observed in the case of Sweden’s Arctic areas, where multiple level government authorities co-exist with strategical “mining-sceptical allies” at different scales, some subnational units might ‘open-up’; hence influencing higher level outcomes and allowing alternative sustainability pathways ([Zachrisson and Beland Lindahl, 2023](#): 9).

Moreover, the existing conservation networks in Northwest Ecuador serve to institutionalise and strengthen the region’s governance processes, territories, and community struggles. As participants of the study have stated, the absence of the state in rural areas constitutes an opportunity for the emergence of local governance structures; as participants stated, “when the state does not get involved, people begin to organise.” Likewise, as observed in the case of Canada’s boreal forest, in the absence of political leadership, private initiatives may significantly add to conservation planning ([Murray et al., 2015](#)). [Maciejewski et al. \(2016\)](#) observe that private land conservation networks marked by interactions, such as animal dispersal, exchange of management expertise, and tourism, could enhance long-term sustainability and effectiveness, increasing their global conservation contribution by being more coordinated with public initiatives.

However, the extent to which Ecuadorian reserves are protected from potential exposure to mining and other natural resource extraction is arguable, as participants of this study warn. Similarly, 1609 mining concessions, covering an area of 1,486,433 ha, overlap with Natural Protected Areas (NPAs) in Mexico, including biosphere reserves ([Armendáriz-Villegas et al., 2015](#)). Thus, as observed by [Armendáriz-Villegas et al. \(2015\)](#), an NPA decree is not an obstacle to mega-mining projects. Globally, approximately 7 % of mines for four critical metals directly overlap with PAs and about 27 % lie within 10 km of a PA boundary ([Durán et al., 2013](#)).

The inclusion of the RoN in the Ecuadorian Constitution came to reinforce the historic struggles of local communities in the study area. The legal cases of protection of Los Cedros, Intag, and the Chocó Andino,

among other legal cases, show the importance of rights-based understandings of environmental struggles. Similarly, Valladares and Boelens (2019) also observe that litigation has become the main tool to fight for the RoN, based on the unique Ecuadorian Constitution that recognises nature's rights since 2008. Legal knowledge opens up possibilities for counter-expertise networks to confront state mining institutions and policy-making processes (Espinosa, 2022). Ecuador's experience informs international efforts to advance the RoN by providing standards and tools that further contribute to existing human rights and environmental law (Kauffman and Martin, 2021).

7.2. Governance challenges faced by frontline communities

Participant's narratives also give insights into governance challenges faced by local governments and communities, such as: a) Institutional gaps; b) Competing visions of development; c) Arrest of nature rights defenders and deterioration of community relations. Following Gobby et al. (2022:9), these challenges can be considered as "the limits of resistance" as they severely undermine the resistance efforts of communities and local actors. One challenge discussed in this study is the institutional gap created by opposing development visions. Institutional gaps create institutional mismatches (mismatch between local governance created by resource user communities and governance adopted at a national scale) and legal pluralism, whereby the co-existence of multiple sets of legal systems or constitutional choice rules apply to the same resource (see Rahman et al., 2017). Local institutions, such as the Conservation and Sustainable Use Areas (ACUS), at the local government level, establish management plans that designate those areas with strict protection and conservation/recovery macro zones where no mining activities are allowed. Nevertheless, because several extractive projects are designated national strategic projects, local consultation proposals from popular initiatives are often delegitimised for allegedly exceeding jurisdictional power on national issues (Vela-Almeida and Torres, 2021). This phenomenon is observed across Latin America, with some levels of the state seeking to protect Indigenous territories and their natural resources while the central Government promotes rather extractive development models (Zaremborg and Torres Wong, 2018; Torres-Wong and Jimenez-Sandoval, 2021).

Moreover, as an illustration, the Ecuadorian legal framework grants the consultation on environmental matters carried out to the entire community as provided in Art. 398 of the Constitution and the right to prior, free, and informed consultation established in Art. 57, a collective right whose ownership belongs to Ecuador's Indigenous, Afro-Ecuadorian, and Montubio communities, peoples, and nationalities (Asamblea Nacional, 2008). However, in Ecuador, local communities and Indigenous peoples continue fighting for the right to consultation. Similarly, three ethnographic case studies in India show that rights-based international guidelines are rarely implemented in meaningful ways in Indigenous territories (Bose, 2023) and, as observed in Guatemala, the reaction of corporate/government/elite to anti-mining activism is to develop strategies that preclude requirements for consultation and consent, including the use of violence (Sveinsdóttir et al., 2021). In Intag, protest and the increasing criminalisation of human rights defenders is observed, not just as narrated by study participants, but also as reported by a number of civil society organisations and independent media (OLCA, 2014; Colectivo de Investigación y Acción Psicosocial Ecuador, 2015; Amnesty International, 2015). Following mining conflicts and arrest of human rights defenders in Intag, assessments show psychological and social impacts, including fragmentation and deterioration of community relations (Colectivo de Investigación y Acción Psicosocial Ecuador, 2015). Similarly, as observed by Gobby et al. (2022) in 57 cases of environmental conflict in Canada, resistance as governance is limited by mechanisms of repression and criminalisation of communities and land defenders. The criminalisation of human rights defenders and communities opposing extractive projects is part of a growing global trend (see e.g., Andreucci and Kallis, 2017; Pérez-

Rincón et al., 2019; Arce and Nieto-Matiz, 2024).

7.3. Post-extractivism discourses and the role of local communities in resource governance

The governance lessons highlighted by frontline communities in Northwest Ecuador are framed by and inform post-extractivism discourses aimed at promoting governance models that move away from reliance on extractive industries. However, a further critical issue mentioned by the study participants was that the governmental development vision, which, as of 2021, sought to develop strategies to progressively overcome the country's dependence on fossil fuels and raw material exportation, does not match the simultaneous trend of large-scale natural resource extraction. Study participants emphasised the urgent need to rethink the development model based on extractive activities due to its high social and environmental impacts. Additionally, the post-Covid-19 economic downturn increased the pressure to enact economic reforms; however, in the face of economic hardship, such reforms may face fiercer opposition from the population, as underlined by the radicalisation of resistance against mining in several territories in Ecuador (Cazar Baquero, 2023). Vela-Almeida et al. (2018), investigating the multiple positions of the stakeholders involved in the mining debate in Ecuador, highlight the main distinct discourses: responsible extractivism whereby the capacity of the state to secure social, economic, and environmental sustainable extractive practices is stressed; local self-determination discourses whereby local people have the right to decide over their territories; and national and local economic development discourses that emphasise the importance of the mining sector for national and local economic development. However, as participants of this study argued, the central discussion on economic alternatives to mining is dominated by the belief that there are few economic alternatives for rural development. The results of our study draw attention to the potential for sustainable development and the need to break the widely held assumption that the "rural (countryside) is not profitable". Participants highlighted that the many alternatives available across the mega-diverse territory – organic agriculture, agroforestry, and ecotourism, among others – deserve increased governmental support. Similarly, when analysing the experience of Intag, Avci (2017) concludes that the range of sustainable economic alternatives is an important factor in fostering environmental justice. As observed in other parts of Ecuador, livelihoods remain entirely linked to the land for many Indigenous and rural communities; hence, transforming them into mining workers annihilates their capacity for self-subsistence (Vela-Almeida, 2018). As exemplified in this study by panela (raw sugar cane) and coffee producers, their struggle is not only a resistance strategy or protest, but is accompanied by a proposal of economic development. Likewise, when reviewing the case of indigenous resource governance through the case of Capulálpam de Méndez, an Indigenous community located in Oaxaca, Mexico, we see that some Indigenous communities can successfully develop models of resource governance that have the potential of being viable alternatives to the extractive industry (Torres-Wong and Jimenez-Sandoval, 2021). However, the successful economic projects that contributed to improving the living conditions in the studied Mexican region were possible due to multi-sectorial and multi-stakeholder alliances with state tourism, agriculture agencies, and Indigenous and neighbouring communities (Torres-Wong and Jimenez-Sandoval, 2021). Similarly, as observed by this study's participants, synergies have been created across sectors and spaces as well as between stakeholders to harmonise territorial priorities.

Globally, thousands of hectares of land once devoted to small-scale agriculture have been converted into extraction sites, causing significant environmental and social impacts (Nygren et al., 2022). This underscores the need for a deeper discussion on post-extractivism alternatives and the role of local communities in shaping resource governance (Nygren et al., 2022).

8. Conclusions

Based on narratives, this study aims to understand how resistance to new forms of extractivism fosters the development of new governance structures in Northwest Ecuador, and how this governance is shaped and manifested. Study results highlight the emergence and development of new forms of governance structures triggered by the mining conflict. These include socio-organisational processes alongside the strengthening of associations and civil society organisations; institutionalisation of private, civil society, and community conservation initiatives; as well as actions by the organised community to successfully invoke the RoN through legal litigation. The conditions for the development of these local governance structures included a greater participation of Decentralised Autonomous Governments (GADs) combined with existent private and community conservation networks, synergies across sectors, spaces, and between stakeholders, alongside the increasing openness of judges to rule for the RoN. However, resistance through governance efforts of local governments and communities is stymied by institutional gaps and mismatches that reflect incompatible ideas of territory and visions of development. These conceptualisations of governance as resistance to mining, along with the associated challenges and lessons drawn by local governments and communities, contribute to a growing body of literature advocating for new governance models to advance post-extractivism alternatives. However, further research is a need to conceptualise governance processes grounded in local communities' struggles and realities, especially those located on the frontline of recently intensified resource extraction, and on how multiple governance elements are interrelated.

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CRediT authorship contribution statement

Claudia Coral: Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Tobias Plieninger:** Writing – review & editing. **Stefan Sieber:** Writing – review & editing, Funding acquisition. **Valerie Graw:** Writing – review & editing, Visualization.

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 data that has been used is confidential.

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References

- Acción Ecológica. (2023). Una sentencia histórica: Corte de Imbabura reconoce que mineras vulneraron derechos en Íntag. Article of 30.03.2023. <https://www.accionecologica.org/una-sentencia-historica-corte-de-imbabura-reconoce-que-mineras-vulneraron-derechos-en-intang/>.
- ACUS-MIT, 2019. Registro Oficial de la Ordenanza que delimita y crea el ACUS-MIT. <https://acusmit.wixsite.com/acusmit/post/registro-oficial-de-la-ordenanza-que-delimita-y-crea-el-acus-mit-18-de-abril-de-2019>.
- Almeida, M.D., 2019. Estudio de caso sobre la gobernanza del sector minero en el Ecuador. Documentos de Proyectos (LC/TS.2019/56), Santiago, Comisión Económica para América Latina y el Caribe (CEPAL). Available online. <https://repositorio.cepal.org/bitstream/handle/11362/44876/1/S1900582.es.pdf> In Spanish.
- Amnesty International, 2015. Environmental activists charged with rebellion. UA: 8/15 Index: AMR 28/001/2015 Ecuador. Date: 20 January 2015. <https://www.amnesty.org/fr/wp-content/uploads/2021/05/AMR2800012015ENGLISH.pdf>.
- Andreucci, D., Kallis, G., 2017. Governmentality, development and the violence of natural resource extraction in Peru. *Ecol. Econ.* 134, 95–103. <https://doi.org/10.1016/j.ecolecon.2017.01.003>.
- Andreucci, D., Radhuber, I.M., 2017. Limits to “counter-neoliberal” reform: Mining expansion and the marginalisation of post-extractivist forces in Evo Morales’s Bolivia. *Geoforum* 84, 280–291. <https://doi.org/10.1016/j.geoforum.2015.09.002>.
- Arbeláez-Ruiz, D.C., 2022. Indigenous resistance to mining in post-conflict Colombia. *Extractive Industries Soc.* 9, 100953. <https://doi.org/10.1016/j.exis.2021.100953>.
- Arce, M., Nieto-Matiz, C., 2024. Mining and violence in Latin America: the state’s coercive responses to anti-mining resistance. *World Dev.* 173, 106404. <https://doi.org/10.1016/j.worlddev.2023.106404>.
- ARCOM, 2008. Mapa Situacional de la Minería en el Ecuador. Catastro minero. <https://www.argcis.com/apps/View/Informe.html?appid=4be5144d6811445880a032c5db0fc747>.
- Armendáriz-Villegas, E. J., de los Ángeles Covarrubias-García, M., Troyo-Diéguez, E., Lagunes, E., Arreola-Lizárraga, A., Nieto-Garibay, A., Beltrán-Morales, L. F., & Ortega-Rubio, A., 2015. Metal mining and natural protected areas in Mexico: Geographic overlaps and environmental implications. *Environ. Sci. Pol.* 48, 9–19. <https://doi.org/10.1016/j.envsci.2014.12.016>.
- Arsel, M., Pellegrini, L., 2022. Global extractive imperative: from local resistance to unburnable fuels. *Int. Dev. Plan. Rev.* 44 (1), 1–12. <https://doi.org/10.3828/idpr.2021.25>.
- Asamblea Nacional, 2008. Constitución de la República del Ecuador [Constitution of the Republic of Ecuador]. Available online https://www.asambleanacional.gob.ec/site/s/default/files/documents/old/constitucion_de_bolsillo.pdf In Spanish.
- Asuncion, A. M., Ubaldo, J. E. T., Caouette, D., Besmanos, B., Brunet, N.D., 2022. Challenging the binary of home vs. host state governance: Canadian transnational mining behavior and local communities in the Philippines extractive industry. *The Extractive Industries and Society*, 12, 101166. <https://doi.org/10.1016/j.exis.2022.101166>.
- Avci, D., 2017. Mining conflicts and transformative politics: a comparison of Íntag (Ecuador) and Mount Ida (Turkey) environmental struggles. *Geoforum* 84, 316–325. <https://doi.org/10.1016/j.geoforum.2015.07.013>.
- BCE, 2023. Boletín del Sector Minero: Resultados al Primer Trimestre 2023 Julio 2023. Banco Central del Ecuador. <https://contenido.bce.fin.ec/documentos/Estadisticas/Hidrocarburos/ReporteMinero072023.pdf>.
- Bose, P., 2023. Equitable land-use policy? Indigenous peoples’ resistance to mining-induced deforestation. *Land Use Pol.* 129, 106648. <https://doi.org/10.1016/j.landusepol.2023.106648>.
- Cano Pecharraman, L., 2018. Rights of nature: Rivers that can stand in court. *Resources* 7 (1). <https://doi.org/10.3390/resources7010013>.
- Cardona, J. P., 2023. Ecuador decidió detener la explotación petrolera en el Yasuní y la minería en la Reserva del Chocó Andino. Mongabay. 22.08.2023. <https://es.mongabay.com/2023/08/ecuador-decidió-detener-explotacion-petrolera-en-yasuni-y-mineria-en-reserva-del-choco-andino/>.
- Carrera, M., Bustamante, M., Sáenz, M., 2016. Las áreas protegidas del Distrito Metropolitano de Quito: conocer nuestro patrimonio natural. SAMDMQ / Fondo Ambiental / CONDESAN / Proyecto EcoAndes-Programa Bosques Andinos. Quito. <https://condesan.org/wp-content/uploads/2017/07/Libro1.pdf>.
- Cazar Baquero, D. (2023). Desafíos ambientales de Ecuador en el 2023: frenar la minería ilegal y más garantías para los defensores ambientales. Mongabay. Article of 12.01.2023. <https://es.mongabay.com/2023/01/desafios-ambientales-de-ecuador-en-el-2023-frenar-la-mineria-ilegal/>.
- Colectivo de Investigación y Acción Psicosocial Ecuador, 2015. Íntag: una sociedad que la violencia no puede minar. Informe psicosocial de las afectaciones en Íntag provocadas por las empresas mineras y el Estado en el proyecto Llorimagua. <https://geografiacriticaecuador.org/wp-content/uploads/2017/01/informe-psicosocial-intang.pdf>.
- Conde, M., 2017. Resistance to mining. A review. *Ecol. Econ.*, 132, 80–90. <https://doi.org/10.1016/j.ecolecon.2016.08.025>.
- Conde, M., Le Billon, P., 2017. Why do some communities resist mining projects while others do not? *Extractive Industries Soc.* 4 (3), 681–697. <https://doi.org/10.1016/j.exis.2017.04.009>.
- Coral, C., Bokelmann, W., Bonatti, M., Carcamo, R., & Sieber, S., 2021. Understanding institutional change mechanisms for land use: lessons from Ecuador’s history. *Land Use Pol.*, 108. <https://doi.org/10.1016/j.landusepol.2021.105530>.
- Corbin, J., Strauss, A.L., 2015. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory, 4th ed. Sage Publications Ltd.
- del Mármol, C., Vaccaro, I., 2020. New extractivism in European rural areas: How twentieth first century mining returned to disturb the rural transition. *Geoforum* 116, 42–49. <https://doi.org/10.1016/j.geoforum.2020.07.012>.
- Durán, A.P., Rauch, J., Gaston, K.J., 2013. Global spatial coincidence between protected areas and metal mining activities. *Biol. Conserv.* 160, 272–278. <https://doi.org/10.1016/j.biocon.2013.02.003>.
- ENAMI EP, n.d. Llorimagua, un proyecto minero ambientalmente responsable. Available online: <https://www.enamiep.gob.ec/?p=2365>. Accessed September 2024. In Spanish.
- Entman, R.M., 1993. Framing: toward clarification of a fractured paradigm. *J. Commun.* 43 (4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>.
- Espinosa, C., 2022. Reducing power disparities in large-scale mining governance through counter-expertise: a synthesis of case studies from Ecuador. *The Extractive Industries and Society* 9, 101000. <https://doi.org/10.1016/j.exis.2021.101000>.
- GADM, 2022. Global Administrative Boundaries. Shapefile Ecuador.

- Gobby, J., Temper, L., Burke, M., von Ellenrieder, N., 2022. Resistance as governance: transformative strategies forged on the frontlines of extractivism in Canada. *The Extractive Industries and Society* 9, 100919. <https://doi.org/10.1016/j.exis.2021.100919>.
- Guayasamin, J.M., Vandegrift, R., Policha, T., Encalada, A.C., Greene, N., Ríos-Touma, B., Endara, L., Cárdenas, R.E., Larreaetegi, F., Baquero, L., Arcos, I., Cueva, J., Peck, M., Alfonso-Cortes, F., Thomas, D., DeCoux, J., Levy, E., Roy, B.A., 2021. Biodiversity conservation: local and global consequences of the application of “rights of nature” by Ecuador. *Neotropical Biodiversity* 7 (1), 541–545. <https://doi.org/10.1080/23766808.2021.2006550>.
- Guayasamin, J.M., Brunner, R.M., Valencia-Aguilar, A., Franco-Mena, D., Ringler, E., Medina, A.A., Morochz, C., Bustamante, L., Maynard, R.J., Culebras, J., 2022. Two new glassfrogs (Centrolenidae: Hyalinobatrachium) from Ecuador, with comments on the endangered biodiversity of the Andes. *PeerJ* 10, e13109.
- Gudynas, E., 2009. Diez tesis urgentes sobre el nuevo extractivismo. Contextos y demandas bajo el progresismo sudamericano actual. In *Extractivismo, política y sociedad* (pp. 187–225). Quito: Centro Andino de Acción Popular (CAAP) y Centro Latinoamericano de Ecología Social (CLAES).
- Gudynas, E., 2010 “The New Extractivism of the 21st Century: Ten Urgent Theses about Extractivism in Relation to Current South American Progressivism,” Americas Program Report (Washington, DC: Center for International Policy, January 21, 2010). <https://postdevelopment.net/wp-content/uploads/2016/10/NewExtractivism10ThesesGudynas10.pdf>.
- Hanaček, K., Kröger, M., Scheidel, A., Rojas, F., Martínez-Alier, J., 2022. On thin ice – The Arctic commodity extraction frontier and environmental conflicts. *Ecol. Econ.* 191, 107247 <https://doi.org/10.1016/j.ecolecon.2021.107247>.
- Heaven, D., 2019. Rights of nature. *New Sci.* 243 (3249), 20–21. [https://doi.org/10.1016/s0262-4079\(19\)31812-3](https://doi.org/10.1016/s0262-4079(19)31812-3).
- Hirsch, E., 2017. Investment’s rituals: “Grassroots” extractivism and the making of an indigenous gold mine in the Peruvian Andes. *Geoforum* 82, 259–267. <https://doi.org/10.1016/j.geoforum.2016.08.012>.
- IUCN (n.d.). The Natural Resource Governance Framework - IUCN Portal. <https://iucn.org/our-union/commissions/group/iucn-ceesp-natural-resource-governance-framework-working-group>.
- Jordan, A., Huitema, D., Hildén, M., van Asselt, H., Rayner, T.J., Schoenefeld, J.J., Boasson, E.L., 2015. Emergence of polycentric climate governance and its future prospects. *Nat. Clim. Chang.* 5 (11), 977–982.
- Jørgensen, K., Jogesh, A., Mishra, A., 2015. Multi-level climate governance and the role of the subnational level. *J. Integr. Environ. Sci.* 12 (4), 235–245.
- Kauffman, C.M., Martin, P.L., 2017. Can rights of nature make development more sustainable? Why some Ecuadorian lawsuits succeed and others fail. *World Dev.* 92, 130–142. <https://doi.org/10.1016/j.worlddev.2016.11.017>.
- Kauffman, C.M., Martin, P.L., 2021. The Politics of Rights of Nature: Strategies for Building a More Sustainable Future. The MIT Press. <https://doi.org/10.7551/mitpress/13855.001.0001>.
- Los Cedros, 2023. Los Cedros and the Rights of Nature. Accessed on 29.09.2023. <https://loscedrosreserve.org>.
- Luckeneder, S., Giljum, S., Schaffartzik, A., Maus, V., Tost, M., 2021. Surge in global metal mining threatens vulnerable ecosystems. *Glob. Environ. Chang.* 69, 102303 <https://doi.org/10.1016/j.gloenvcha.2021.102303>.
- MAAE, 2017. Bosques Protectores. In *Wildlife Conservation Society*. Updated 16.02.2022.
- MAAE, 2023. Áreas protegidas de Ecuador del Sistema Nacional de Áreas Protegidas – SNAP Dirección de información ambiental y del agua. Ministerio del Ambiente, Agua y Transición Ecológica. Updated 2023. <https://arcg.is/0eP8n4>.
- Maciejewski, K., Baum, J., Cumming, G.S., 2016. Integration of private land conservation areas in a network of statutory protected areas: Implications for sustainability. *Biol. Conserv.* 200, 200–206. <https://doi.org/10.1016/j.biocon.2016.05.027>.
- Marks, G., Hooghe, L., 2004. Contrasting Visions of Multi-level Governance. In: Bache, I. & Flinders, M. (eds). *Multi-level Governance*. Oxford University Press, pp. 15–30. <https://doi.org/10.1093/0199259259.003.0002>.
- Maus, V., Giljum, S., da Silva, D.M., Gutschlhofer, J., da Rosa, R.P., Luckeneder, S., Gass, S.L.B., Lieber, M., McCallum, I., 2022. An update on global mining land use. *Sci. Data* 9 (1), 433. <https://doi.org/10.1038/s41597-022-01547-4>.
- MCA, 2022. Reserva de Biósfera del Chocó Andino de Pichincha. Mancomunidad del Chocó Andino. <https://mancomunidadchocoandino.gob.ec/mapa-fijuras-de-manejo-territorial/>.
- Mittermeier, R.A., Rylands, A.B., 2018. Biodiversity Hotspots. In D. A. Dellasala & M. I. Goldstein (Eds.), *Encyclopedia of the Anthropocene* (pp. 67–75). Elsevier. <https://doi.org/10.1016/B978-0-12-809665-9.09962-6>.
- Mohle, E., 2021. Deciding over the territory governance of mining conflicts. The cases of andalgalá, in catamarca, and famatina, in La rioja, Argentina. (2005–2016). *J. Rural. Stud.* 81, 9–16. <https://doi.org/10.1016/j.jrurstud.2020.12.001>.
- MRAG, 2020. Superposiciones de archivos KML de Google Earth. Rainforest Action Group. <https://rainforestactiongroup.org/es/google-earth-kml-file-overlays/>.
- Murray, D.L., Majchrzak, Y.N., Peers, M.J.L., Wehtje, M., Ferreira, C., Pickles, R.S.A., Row, J.R., Thornton, D.H., 2015. Potential pitfalls of private initiatives in conservation planning: a case study from Canada’s boreal forest. *Biol. Conserv.* 192, 174–180. <https://doi.org/10.1016/j.biocon.2015.09.017>.
- Myers, N., 1988. Threatened biotas: “Hot spots” in tropical forests. *Environmentalist* 8 (3), 187–208. <https://doi.org/10.1007/Bf02240252>.
- Nygren, A., Kröger, M., Gills, B., 2022. Global extractivisms and transformative alternatives. *J. Peasant Stud.* 49 (4), 734–759. <https://doi.org/10.1080/03066150.2022.2069495>.
- OLCA, 2014. Correa: el Presidente “progresista” rechazado en Chile por militarizar zonas para explotación minera junto a Codelco y Enami. Observatorio Latinoamericano de Conflictos Ambientales. 14.05.2014 <https://olca.cl/articulo/nota.php?id=104404>.
- Ostrom, E., 2010. Beyond markets and states: polycentric governance of complex economic systems. *Am. Econ. Rev.* 100 (3), 641–672. <https://doi.org/10.1257/aer.100.3.641>.
- Pérez-Rincón, M., Vargas-Morales, J., Martínez-Alier, J., 2019. Mapping and analyzing ecological distribution conflicts in Andean countries. *Ecol. Econ.* 157, 80–91. <https://doi.org/10.1016/j.ecolecon.2018.11.004>.
- Petrás, J., Veltmeyer, H., 2014. *Extractive Imperialism in the Americas: Capitalism’s New Frontier*. Leiden: Brill.
- Prieto, G., 2021. The Los Cedros Forest has Rights: The Ecuadorian Constitutional Court Affirms the Rights of Nature. *VerfBlog*, 2021/12/10, <https://verfassungsblog.de/th-e-los-cedros-forest-has-rights/>, <https://doi.org/10.17176/20211211-064222-0>.
- Rahman, H.M.T., Saint Ville, A.S., Song, A.M., Po, J.Y.T., Berthet, E., Brammer, J.R., Brunet, N.D., Jayaprakash, L.G., Lowitt, K.N., Rastogi, A., Reed, G., Hickey, G.M., 2017. A framework for analyzing institutional gaps in natural resource governance. *Int. J. Commons* 11 (2), 823–853. <https://doi.org/10.18352/ijc.758>.
- Riofrancos, T., 2020. Resource Radicals. From Petro-Nationalism to Post-Extractivism in Ecuador. B. Bosteels & G. Ciccariello-Maher (Eds.). Durham, USA: Duke University Press.
- Roe, E.M., 1991. Development narratives, or making the best of blueprint development. *World Dev.* 19 (4), 287–300. [https://doi.org/10.1016/0305-750X\(91\)90177-J](https://doi.org/10.1016/0305-750X(91)90177-J).
- Roe, E.M., 1994. *Narrative policy analysis, theory and practice*. Duke University Press, Durham.
- Roy, B.A., Zorrilla, M., Endara, L., Thomas, D.C., Vandegrift, R., Rubenstein, J.M., Policha, T., Ríos-Touma, B., Read, M., 2018. New mining concessions could severely decrease biodiversity and ecosystem services in Ecuador. *Trop. Conserv. Sci.* 11 <https://doi.org/10.1177/1940082918780427>.
- Scoones, I., Smalley, R., Hall, R., Tsikata, D., 2019. Narratives of scarcity: Framing the global land rush. *Geoforum*, 101(June 2018), 231–241. <https://doi.org/10.1016/j.geoforum.2018.06.006>.
- Stephenson, P., 2013. Twenty years of multi-level governance: ‘where does it come from? What is it? Where is it going?’. *J. Eur. Publ. Policy* 20 (6), 817–837.
- Sveinsdóttir, A.G., Aguilar-Støen, M., Bull, B., 2021. Resistance, repression and elite dynamics: unpacking violence in the Guatemalan mining sector. *Geoforum* 118, 117–129. <https://doi.org/10.1016/j.geoforum.2020.12.011>.
- Tetreault, D., 2020. The new extractivism in Mexico: rent redistribution and resistance to mining and petroleum activities. *World Dev.* 126, 104714 <https://doi.org/10.1016/j.worlddev.2019.104714>.
- The World Bank, 2001. The World Bank Inspection Panel. Investigation Report on Ecuador Mining Development and Environmental Control Technical Assistance Project (Loan Number 3655-Ec) Report No. 21870 February 23, 2001. <https://documents1.worldbank.org/curated/ar/528981468772178736/pdf/218700investigation0report.pdf>.
- Thiel, A., Moser, C., 2019. Foundational Aspects of Polycentric Governance: Overarching Rules, Social-Problem Characteristics, and Heterogeneity. In A. Thiel, W. Blomquist, & D. Garrick (Eds.), *Governing Complexity: Analyzing and Applying Polycentricity* (Cambridge Studies in Economics, Choice, and Society, pp. 65–90). Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108325721.004>.
- Tjandra, E.G., 2023. Ni a favor ni en contra: Emotional geographies of life with mining. *Extract. Ind. Soc.* 15, 101286 <https://doi.org/10.1016/j.exis.2023.101286>.
- Torres, C., Verschoor, G., 2020. Re-imagining environmental governance: gold dredge mining vs territorial health in the Colombian Amazon. *Geoforum* 117, 124–133. <https://doi.org/10.1016/j.geoforum.2020.09.013>.
- Torres-Wong, M., Jimenez-Sandoval, A., 2021. Indigenous resource governance as an alternative to mining: redefining the boundaries of indigenous participation. *Extract. Ind. Soc.* 101001 <https://doi.org/10.1016/j.exis.2021.101001>.
- Valladares, C., Boelens, R., 2019. Mining for Mother Earth. Governmentalities, sacred waters and nature’s rights in Ecuador. *Geoforum* 100, 68–79. <https://doi.org/10.1016/j.geoforum.2019.02.009>.
- van Teijlingen, K., Hogenboom, B., 2016. Debating alternative development at the mining frontier: Buen Vivir and the conflict around El Mirador Mine in Ecuador. *J. Dev. Soc.* 32 (4), 382–420. <https://doi.org/10.1177/0169796X16667190>.
- Vela-Almeida, D., 2018. Territorial partitions, the production of mining territory and the building of a post-neoliberal and plurinational state in Ecuador. *Polit. Geogr.* 62, 126–136. <https://doi.org/10.1016/j.polgeo.2017.10.011>.
- Vela-Almeida, D., Torres, N., 2021. Consultation in Ecuador: institutional fragility and participation in national extractive policy. *Lat. Am. Perspect.* 48 (3), 172–191. <https://doi.org/10.1177/0094582X211008148>.
- Vela-Almeida, D., Kolinjivadi, V., Kosoy, N., 2018. The building of mining discourses and the politics of scale in Ecuador. *World Dev.* 103, 188–198. <https://doi.org/10.1016/j.worlddev.2017.10.025>.
- Vélez-Torres, I., Vanegas, D., 2022. Contentious environmental governance in polluted gold mining geographies: the case of La Toma, Colombia. *World Dev.* 157, 105953 <https://doi.org/10.1016/j.worlddev.2022.105953>.
- Veltmeyer, H., 2020. Latin America in the vortex of social change: Development and social movement dynamics. *World Dev.* 130, 104916 <https://doi.org/10.1016/j.worlddev.2020.104916>.
- Villalba-Eguiluz, C.U., Etxano, I., 2017. Buen Vivir vs development (II): the limits of (neo-)extractivism. *Ecol. Econ.* 138, 1–11. <https://doi.org/10.1016/j.ecolecon.2017.03.010>.
- Zachrisson, A., Beland Lindahl, K., 2023. Extractive governance and mining conflicts: Challenging scalar hierarchies through ‘opening up’ to local sustainability pathways. *Political Geogr. vironmental activists charged with rebel* 105, 102927. <https://doi.org/10.1016/j.polgeo.2023.102927>.

Zaremborg, G., Torres Wong, M., 2018. Participation on the Edge: Prior Consultation and Extractivism in Latin America. *Journal of Politics in Latin America* 10 (3), 29–58. <https://doi.org/10.1177/1866802X1801000302>.

Zorrilla, C., 2021. Codelco en Ecuador: Entre Problemas Ambientales, Líos Legales y Rechazo Social. <https://carloszorrilla-21574.medium.com/codelco-en-ecuador-en-tre-problemas-ambientales-lios-legales-y-rechazo-social-50a1f718dc60>.

Zorrilla, C., Sydow, J., 2020. Por Qué es Importante la Debida Diligencia Ambiental en las Cadenas de Suministro de Minerales. Germanwatch. https://www.germanwatch.org/sites/default/files/Fallstudie%20Ecuador_ES_final_0.pdf.