

Contention and ambiguity: Mining and the possibilities of development¹

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ABSTRACT

The last decade and a half has witnessed a dramatic growth in mining activity in many developing countries. This paper reviews these recent trends and describes the debates and conflicts they have triggered. We review evidence regarding debates on the resource curse and the possibility of an extraction led pathway to development. We then describe the different types of resistance and social mobilization that have greeted mineral expansion at a range of geographical scales, and consider how far these protests have changed the relationships between mining and political economic change. The conclusions address how far such protest might contribute to an “escape” from the resource curse, and consider implications for research and policy agendas.

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Contentious and ambiguous: two words to describe the relationship between large scale mining and development. “Contentious” because mining has so often delivered adverse social, environment and economic effects for the many, but only significant gains for the few; ambiguous because of the abiding sense, among local populations as much as development professionals, that *just maybe* mining could contribute much more. In the coexistence of such divergent feelings about mining and its human and environmental impacts lie the seeds of much conflict. In this paper we explore these contested arguments about the implications of mining for development, explain why the existence of so much conflict around mining should not be a surprise, and suggest that, notwithstanding nuanced conceptual arguments about the potential benefits of mining, there are many reasons to expect that it will continue to trigger protest.

To the professional, westernized and activist eye, it might seem obvious that large scale mining is bad for human development. Mines have been associated with appalling labour conditions and, in the southern African case, whole regional economies organized around political and territorializing instruments designed to keep labour cheap and controllable. Mining has also been associated with palpably unsustainable patterns of development and growth. The examples are legion: Potosí, Bolivia - once comparable in size to London and a hive of extractive activity, now the poor capital of a chronically impoverished department, ironically now undergoing another mining boom; Appalachia – geologically wealthy yet one of the US’s poorest regions; the first author’s own Stoke-on-Trent, a one-time mining-pottery-iron and steel complex that he watched unravel and hollow out during his teenage years; and La Oroya, a Peruvian smelter town at the nodal point in a regional economy of mining, declared by the Blacksmith Institute as one of the ten most polluted places in the world (Blacksmith Institute, 2007; BBC, 2006). Air pollutants are so concentrated in La Oroya that children are bussed out of town during the day so they don’t have to breathe within the city limits (O’Shaughnessy, 2007).

Mining has also been associated with spectacularly unequal distributions of wealth. While children and young adults die prematurely in La Oroya, in New York’s exclusive Hamptons the smelter’s owner has built himself what would, according to some, be the most expensive house in the world were it ever to go on the market (Shnayerson, 2003). In earlier historical periods, Bolivian tin barons accumulated

fortunes that were built into national and international cityscapes, while the labour reserve economy underpinning Southern African mining subsidized accumulation controlled and permitted by the apartheid economy. Meanwhile mining has been the backdrop for sad, sometimes tragic music – from Hugh Masakela’s “Stimela (Coal Train)” of Southern Africa to solemn *huaynos* from the central Andes of Peru.

Yet the arguments are never as simple as suggested by the emblematic examples. Indeed, within several of the cases just noted lie seeds of complication. For even if the mining sector left so little behind in British regional economies, mine workers fought to the bitter end to defend the industry and the regional cultures it had sustained. In Bolivia, mine workers’ unions were among the most potent sources for progressive political change in the twentieth century. Even in La Oroya, as smelters contaminate children’s blood and teenager cancer rates chill the observer’s, much of the population defends the continued existence of the smelter and of the regional mining economy with which it is symbiotically linked. Such defence of the self-same industry that scars both landscapes and lungs is found throughout time and across space. The pacts between populations and the mining economy seem, then, Faustian in the extreme. But pacts they *are*, and benefits *do* flow in both directions, even if unevenly so. As June Nash (1979) so perceptively titled her classic study of mining cultures and political economies in highland Bolivia: “We eat the mines and the mines eat us.”

The ambivalence towards mining so often encountered in popular culture finds similar expression in academic and policy writing. Conflicting views have always been on offer and even if, as Rosser (2008) argues, “Prior to the 1980s, natural resources wealth was widely seen as a blessing for developing countries”, analytical voices did not speak as one. The Economic Commission for Latin America (among others) argued that economies would be constrained by deteriorating terms of trade if they continued in their dependence on the export of primary products. More recently, advocates of the “resource curse thesis” express similar concerns about the adverse effects of mineral dependence on growth and equity (Auty, 1993, Sachs and Warner, 1995; Ross, 2008). Even authors who see possibilities of “escaping the resource curse” suggest that if institutional conditions are not right, then minerals should be left in the ground (Stiglitz, 2007).

Yet the World Bank Group and other international financial institutions (IFIs) have continued to encourage countries to commit to extractive industry growth as a development strategy (Campbell, 2008). Since the 1990s, over ninety countries have rewritten mining and investment codes (Bridge, 2004a). The industry has responded accordingly, and many developing countries – both with and without a tradition of mining - have seen significant increases in investment. This expansion has been accompanied by social conflict and political debates around the relations among mining, human rights, environmental integrity, and development. Such debates occur not only among activists, specialist organizations and the industry. They have also been the stuff of presidential campaigns (e.g. Peru, 2006), constitutional reform (Ecuador, 2008) and efforts to craft an ostensibly post-neo-liberal model of development (e.g. Bolivia).

Mineral expansion opens up theoretically urgent questions about neoliberalization, democracy and the state as well as the relationships between social movements and political economy. In this paper we first discuss ways in which these themes have been handled within literatures addressing the “resource curse” and socio-political dynamics in mineral economies. We then discuss the parts played by different actors within these relationships, with a particular focus first on international financial institutions and the industry, and second on social movements and activist organizations and networks. The conflicts among these different actors reflect the contentiousness and ambiguity of mining’s relationship to development and democracy. These very same conflicts, however, might well constitute the political pathway towards the construction of institutions that could foster more socio-economically inclusive and less environmentally damaging forms of mineral expansion.

CURSES, CONFLICTS, CONTAMINATIONS: DEBATING THE “PARADOX OF PLENTY”²

² The title of Terry Karl’s classic on the resource curse (Karl, 1997).

Much social science production on mining has been dominated by debates over the “resource curse,” a thesis that gained momentum in the early 1990s in an attempt to explain two decades of poor economic performance in mineral-rich countries (Auty, 1993, 2001; Sachs and Warner, 1995). The thesis suggests that natural resource abundance generates a series of economic and political distortions which ultimately undermine the contributions of extractive industry to development. A parallel and related literature has drawn attention to environmental and community level “curses” that also accompany mineral expansion.³ These literatures have not gone uncontested. Some authors have questioned the existence of a resource curse (Davis, 1995), and others challenge the methodologies and indicators that have been used to demonstrate it (Brunnschweiler and Bulte, 2008), or argue that if mining has been associated with poor economic and political performance this has been due to pre-existing political institutions rather than mining per se (Davis and Tilton, 2002; Humphreys et al., 2007). In this section we review several ways in which this literature has associated mining with development. While there are apparent points of convergence in these debates, this convergence remains more intellectual than practical.

Mining, growth and poverty

At the centre of the resource curse debate is the argument that mining is associated with poor growth performance (Auty, 1993; Sachs and Warner, 1995; Weber-Fahr, 2002; Freudenburg and Wilson, 2002). Several reasons are suggested for this. One is the idea of a “Dutch disease” in which mineral wealth leads to levels of consumption and investment during boom periods that cannot be sustained through subsequent downswings. This brings exchange rate and wage effects that cripple the growth of non-mineral tradable sectors such as agriculture and manufacturing, leading to an economic structure dominated by enclave economies linked to resource extraction. Such effects are commonly observed in mineral dependent economies (Mikesell 1997), though it is likely the case that the extractive sector is not the only factor

³ Much of this writing has been produced by activist organizations and exists as grey literature, electronic documents and websites. Indeed, except as regards debates on mining and macroeconomic and political issues, the activist community has been well ahead of the scholarly community. Important websites include: Earthworks, <http://www.earthworksaction.org/>; Mines and Communities, <http://www.minesandcommunities.org/>; No Dirty Gold, <http://www.nodirtygold.org/>; Observatory for Mining Conflicts in Latin America, <http://www.conflictosmineros.net/al/html/index.php>; and Oxfam America, http://www.oxfamamerica.org/whatwedo/issues_we_work_on/oil_gas_mining/.

limiting diversification. Indeed, the introduction of new institutional frameworks favouring a concentration of investment in mining have themselves often been products of broader sets of neoliberalizing policy changes, in contexts as diverse as Central Asia (Clark and Naito, 1998) and the Andes (Bebbington, 2007).

The concentration of activity in one sector of the economy brings with it vulnerabilities associated with export dependence. Vulnerability arises from mineral price volatility, and dependence is reinforced by those upstream economic actors that control processing and marketing of final products derived from the minerals in question. Moreover, mining complexes often take the form of enclave economies, developing relatively few links to local suppliers (to the point where many modern transnationally owned mines bring in food from the capital or overseas through contracts with international catering companies: eg. Szablowski, 2002: 263). As a consequence the multiplier effects in the local and regional economy are weak.

Closely related to these observations on growth is the claim that “mining has a dismal track record to date in poverty reduction” (Pegg, 2006:376). Freudenburg and Wilson (2002) draw similar conclusions from a meta-review of 301 sets of findings on mining and economic development in the USA. These “dismal” effects on poverty are explained in several ways. One interpretation departs from the position that mining is bad for growth: “If growth is good for the poor, oil and minerals exports are bad for growth – and hence, bad for the poor” writes political scientist Michael Ross in an influential report for OxfamAmerica (Ross, 2001: 9). A second route is through the wider political economy effects of mineral growth. Some argue that the availability of mineral wealth discourages investment to increase labour productivity in non-mineral sectors leading to underinvestment in education (Pegg, 2006) - though Stijns (2006) argues that with different indicators mineral wealth is associated with greater investment in education. A third position (assumed by the industry) insists that mining is good for growth but still acknowledges that poverty impacts have been disappointing because of poor government capacity and broader governance issues (ICMM, 2006).

Mineral dependence, governance and conflict

Alongside these effects on economic structure, it is also argued that the concentration of economic activity in one sector elicits socio-political and institutional relationships that undermine sustainable and inclusive development. Sectoral concentration implies a concentration of ownership and of power - often in foreign hands – which reduces political competition in policy making and institutional design, increasing the potential for capture and bias. Concentration also leads to revenue streams that are large and easily identifiable, triggering struggles over their control. Mineral rents can also feed the over-expansion of bureaucracy, and induce patronage, clientelism and graft that corrode the quality of government (Auty, 2008; Auty and Gelb, 2001).

The main negative relationship between good governance and mineral wealth relates to lack of transparency and corruption in the appropriation and use of state revenue. There is ample documentation of political corruption involving the allocation of resources to favoured constituents who, in turn, favour the politicians currently in power. Meanwhile, government revenue from extractive industries can undermine broader based taxation systems that play a vital role in establishing a broad “fiscal social contract” that ties together citizens and governors and gives citizens certain authority to hold government to account (Karl, 2007). Absent such a system, the possibilities for unchecked corruption and poor use of public resources are far greater.

The more general point here is that, if “state authority is historically constructed through a series of exchange of resources for institutions” (Karl, 2007: 259), then in mineral dependent states these exchanges are not between state and citizenry but rather between the state and those corporations, foreign powers and financial institutions whose activities generate resources for the state. These exchanges deliver institutional arrangements designed to attend to the needs and demands of these latter actors rather than citizens, and thus lead to an extroverted state with more legitimacy vis-à-vis international interests than national citizens.

This is one of the reasons why natural resource wealth has been identified as a major cause of armed civil conflict (Collier and Hoeffler, 2005; Ross, 2008; for dissenting views see De Soysa and Neumayer, 2007). Over the last decade much of this literature (combining the cases of both hydrocarbon and mining dependent economies) has discussed whether such conflict should be understood in terms of

political and ideological “grievance” among those who bear the costs of extraction and see resource wealth being extracted from their territories, or rather as a consequence of strategic forms of “greed” in which revenues from natural resources motivate looting or extortion from mining companies and provide opportunity for financing large-scale violence (Collier and Hoeffler, 2004; 2005). As Holden and Jacobson (2007) show in the Philippines, both effects can operate at the same time: they give evidence suggesting that mining fosters both grievance and extortion driven conflict, at the same time as it both deepens conflicts (through the militarization that accompanies mining expansion) and delays their resolution (because the Philippine government did not want a peace deal that would cede resource rich areas to a Muslim government).

Of course, not all conflict around extractive industry leads to armed civil strife. Many conflicts are instead socio-environmental struggles over the control of space, the governance of territory, access to land and water resources, the defence of human and citizenship rights, and dissatisfaction over the distribution of mineral rents (see chapters in Peluso and Watts, 2001; Bebbington, 2007). Rather than view such conflicts as always and necessarily a problem, and an indicator of development gone wrong, it is also possible to see them as potentially creative. Indeed, analogies might be drawn with historical experiences in which conflict has been associated with the emergence of more inclusive public institutions that – were it not for the conflict – would never have been created.

Expansion of large scale mining can also foster conflicts *among* different types of mining and miner. At times artisanal and small-scale mining can be found in the same areas as large scale mining, and not infrequently central ministries grant concessions to companies in areas already occupied by artisanal miners. Hilson and Yakovelva (2007) have documented such conflicts in Ghana, we have encountered them in south-eastern Ecuador and Bolivia, and they also have been noted in PNG, Indonesia, Suriname and Guyana.⁴

Mining and the environment

⁴ On artisanal mining see, for instance, Hilson and Yakovelva (2007) and Fisher (2007).

If in the face of such analyses it has been difficult for the mining sector to argue that it *can* be good for growth and governance, arguing its case on environmental grounds is even more of a challenge. At a global level, figures collected by advocacy groups suggest significant environmental impact, and others note that “the discovery, extraction and processing of mineral resources is widely regarded as one of the most environmentally and socially disruptive activities undertaken by business” (Jenkins and Yakovleva, 2006: 272). According to Cardiff and Sampat (2007), while mining contributes around 1 percent of global GDP, it consumes between 7 and 10 percent of global energy and is responsible for 13 percent of sulphur dioxide emissions. Some 39 percent of threatened forest margins are also threatened because of mining activities. In one extreme case, a glacier filled valley on the Chile-Argentina border is the site of a major mining conflict.⁵

On a more local scale, mineralizations are often found in headwater areas that serve as sources for rural and urban water supply, or in desert areas where water required for extraction and processing has to be diverted from elsewhere and other uses. With open pit technologies the local and regional landscape transformations associated with mining become all the more significant. Though an extreme case, the surface area of Minera Yanacocha’s⁶ open pit gold mine in the department of Cajamarca, Peru, exceeds that of the departmental capital city and is visible from outer space (Bury, 2005). Meanwhile, modern mines require immense quantities of energy in order to operate and mine development is often accompanied with construction of dams and hydroelectric plants, or the extension of natural gas based energy networks – all introducing further competition over land, water and energy resources between mines and other users.

These and other environmental impacts have led to green accounting initiatives that seek to give a fuller calculation of the final economic benefits of mining. Thus in Chile, one of the banner countries for the “mining leads to development” argument, conventional accounting measures suggest that mining contributed between 7 and 9

⁵ This is the proposed Pascua Lama mine that Canadian company Barrick Gold Corporation hope to develop.

⁶ Minera Yanacocha is owned by Newmont, Buenaventura and the International Finance Corporation. Unlike conventional mining that enters by shafts to access underground veins, open pit mining involves opening the land from the surface, the removal of vast quantities of earth and rock, and extensive land cover change –Yanacocha moved around 200 million tons of rock p.a. (2003-2005).

percent of the country's GDP during the first half of the 1990s. However, environmental economists from the University of Chile and Chile's National Commission for the Environment concluded that traditional accounting methods "overestimated the economic income generated by the Chilean mining sector...by 20–40 percent" (Figueroa et al, 2007: 215), even when only factoring in the costs of resource depletion. Had additional environmental and health effects of mining, such as air or water pollution, also been included then the overestimation would have been greater still.

Convergences, divergences

Existing at the interface of academics and activism, the debate on mining, extraction and development has generated its fair share of catchy terms: "resource curse," "Dutch disease," "greed and grievance." Indeed, it is perhaps because of their potential political resonance that these terms have been challenged. Thus while some speak of "the well-documented 'resource curse'" (Collier and Hoeffler, 2005: 625) others argue that the evidence for the curse is largely an artefact of indicator choice (Brunnschweiler and Bulte, 2008). For its part, the industry seeks to reframe the debate in terms of the "resource endowment" rather than "curse" (ICMM, 2006).

As these debates have unfolded there appears to have been convergence among the views of critics and boosters. Auty seems to see more scope for escaping the curse (1993; 2001; 2008), while Pegg (2006:377) "accepts the *fact* that mining is potentially a great source of wealth which could generate tremendous economic benefits for poor countries" (our emphasis). Meanwhile among the proponents of mining, the World Bank publishes material suggesting "that countries with substantial incomes from mining performed less well than countries with less income from mining" (Fahr-Weber, 2002: 7).⁷ Authors who have criticized the idea of the resource curse now conclude that perhaps mining ought not be promoted everywhere in same way (Davis and Tilton, 2002).

⁷ That said, the report goes on to suggest that if compared with other countries in the same region, then mineral dependent economies performed better than non-mineral economies.

The convergence (if that is what it is) among these positions is around questions of context and institutions, and increasingly one senses an “it all depends” tone in much analysis.⁸ In particular, whether mineral expansion triggers the resource curse effect or instead fosters growth is deemed to depend on the quality of institutions: on whether a fiscal social contract exists or not, on degrees of transparency, and on the quality of governance in general. Writing from the Bank, Fahr-Weber (2002:14) conclude that those countries that “get it right” display competent economic, sectoral and revenue management, and that the challenge of building such institutional capacity is “more urgent” “where the mining sector dominates an economy.”

Consistent with this focus on institutions Karl (2007: 256) insists that “the ‘resource curse’ is primarily a political not an economic phenomenon.”⁹ However, by framing the issue as a *political* problem rather than a *governance* issue, Karl also helps make explicit that it is precisely in the domain of the *political* that significant divergence persists among critics and proponents. This is so in at least two senses: the real politics of state formation and the *realpolitik* of mining investment. By the former, we mean the understanding of how “competent” institutions might emerge. While the IFIs and others approach such institutional questions as capacity building issues, historical experience would suggest that the consolidation of democratizing institutions is more likely to be a product of conflict than technocratic design, corporate philanthropy or the sorts of public sector management loans that the IFIs are wont to offer (Bebbington and Burneo, 2008; Boix, 2008). Terry Karl notes the institutional and political distortions that have emerged in mineral dependent economies “cannot be undone without a huge coordinated effort by all the stakeholders involved” (Karl, 2007: 258). Disagreement persists, then, over the mechanisms through which institutional change occurs (socio-political processes or IFI loans?), and the time scales over which this happens (historical time or project time?).¹⁰

⁸ Aspinall (2007) similarly shows that the likelihood of grievance translating into sustained and armed mobilization depends on deeper regional histories and processes of state formation.

⁹ While Karl’s empirical reference is to petro-states, though her more general public intellectual work around revenue transparency addresses mineral states also.

¹⁰ In an interview with Bebbington, a senior manager at the Inter-American Development Bank asked incredulously, so do we just leave it under the ground until the institutions are built? Just maybe, the answer is yes (Stiglitz, 2007).

The determination on the part of IFIs, companies and their host governments to believe that good governance can be crafted in project time is in turn related to the *realpolitik* of the sector. This *realpolitik* is driven by an intense pressure to continue, indeed expand, investment in extractive industry. Thus, while the multilaterals, the industry and others may acknowledge in print that “governance matters”, actions speak louder than publications – and the actions reveal a different story. We comment on the industries’ actions in the next section - here we focus on those of the IFIs and thus (by implication) of host governments who sit on IFI boards.

IFI practice suggests that investment is proceeding apace. In the Inter-American Development Bank the private sector development group is on the ascendant. The World Bank Group has continued to support programmes that reform investment and mining codes, ease profit repatriation, reduce and fix tax and royalty rates, and support basic geological surveying in order to generate more base data on the basis of which companies can make decisions as to where to invest in more detailed exploration (Bury, 2005; Campbell, 2003: 4; Hilson and Yakovleva, 2007). Meanwhile MIGA is involved in large scale mining investments (Szablowski, 2002), and the IFC already has investments in several very large mines. One of these, the already mentioned Yanacocha in Peru, is said to be among the most profitable investments in the entire IFC portfolio. Moreover, some of this investment growth occurs in contexts where the Banks’ own governance sensitive analysis would suggest it should not, leading Pegg (2006: 382) to conclude that “the [World] Bank has refused to make good governance criteria a precondition for its involvement in the mining sector.” The relatively guarded response of the Bank’s Management to the quite critical findings of the Extractive Industries Review appears to confirm this view, and suggests little proclivity to slow-down investment in extractive industry or increase *ex ante* conditions (Pegg, 2006). In interviews, IFI staff working in the sector will argue, almost mantra-like, that even if in-country governance conditions are not ideal, it is better for the bank in question to be involved in extractive industry investment because from the inside they will be able to make things better.

Campbell (2003, 2006, 2008) takes this critique further still and argues that the ways in which the Bank Group has supported mining actually *undermine* state capacity and *weaken* potential links between mining and development. Reforms, she says, have

been designed merely to increase investment, and have paid scant attention to themes such as regional development, mining-agriculture linkages, environmental protection or social impacts:

“.. reforms have had the effect of reducing institutional capacity, constraining policy options, as well as driving down norms and standards in areas of critical importance for social and economic development, and the protection of the environment” (Campbell, 2008:3).

In short, reforms have weakened the ability of African states to perform precisely those management, monitoring and surveillance roles that elsewhere the Bank suggests are essential (Fahr-Weber, 2002).

If the *realpolitik* of extraction is what really drives the mining-development relationship, more than any nuanced conceptual argument about the resource curse, then there is reason to suspect that the patterns identified in the resource curse literature will persist for some time. This seems all the more so if we look at certain tendencies in sector practice.

SECTOR PRACTICE AND THE SHIFTING GEOGRAPHIES OF MINING

Over the last two decades, the international mining sector has undergone changes in its global geographies of investment, ownership and demand, as well as in national and local geographies of extraction. Not all these shifts imply that patterns identified in the resource will persist, though many of them have quite ambiguous implications for the quality of governance in the countries experiencing mineral growth and also seem likely to foster social protest.

Between 1990 and 2001 mining investment in developing economies showed, in relative terms, a steady increase while that in developed economies declined (Bridge, 2004a). This appears to be an effect of the types of macroeconomic and sector reforms just noted, coupled with the push effect of more stringent environmental standards and concerns in the North (Holden and Jacobson, 2007; Cardiff and Sampat, 2007). Of course, important mining activity has continued in the global North, especially in Canada, the USA and Australia, and it may well be that global warming, ice melt and policy changes may lead to increased exploration in the Canadian Arctic,

Antarctica and elsewhere. Nonetheless, the increase of investment in developing countries has been palpable.

This growth into the global South has been geographically uneven, with some regions – and some countries within those regions - seeing far more growth than others (Bridge, 2004a; Cardiff and Sampat, 2007). Latin America has seen a steady increase in its share of global investment from 12 percent in 1990 to fully 33 per cent by 2000 (de Echave, 2007), and during the 1990s it saw twelve of the world’s twenty-five largest mining *investment* projects (Bridge (2004a). Investment in mineral exploration in Africa is also increasing rapidly, from 4% of global spending in 1991 to 17.5% in 1998, and overall mining investment in sub-Saharan Africa doubled between 1990 and 1997 (Pegg, 2006:383). Gold mine production in Ghana increased 700% over the last two decades (Hilson and Yakovleva, 2007: 101).

There is also somewhat greater geographical unevenness in the domiciles of companies involved in mineral extraction. By 2006, the Brazilian miner, Companhia Vale do Rio Doce had “emerged as a full scale, integrated, diversified and successful global mining giant from a regional iron ore company”, becoming one of the world’s top four mining companies (PricewaterhouseCoopers, 2007:29). By 2008, the top 40 companies included five from China, and two from each of Russian, India and Indonesia (PricewaterhouseCoopers, 2008:50). Thus one begins to see emerging market companies increasing their mining investment in Latin America, Africa and elsewhere (often with support from their home states in deals which combine mining and development).¹¹ Their presence is also being increasingly felt in investment markets: news was made in 2007 when for the first time a British company (Monterrico Metals) listed on London’s Alternative Investment Market and with significant copper assets in Peru was purchased by a Chinese consortium (Zijin).¹²

¹¹ “For instance, the Chinese in January 2008 finalized a deal to provide loans of around \$5bn to the DRC for infrastructure projects in an unconventional exchange for majority stakes in two Congolese coppercobalt deposits for Chinese firms. Additionally, loans from the Chinese Development Bank helped finance Chinalco’s purchase of 9% of the Rio Tinto Group” (PriceWaterhouseCoopers, 2008:42).

¹² Such changes complicate strategies for activists who have typically targeted companies and financial institutions based in North America, Europe and Australia.

Geographies of demand for minerals have also shifted with East and South Asia becoming progressively more important metal consumers. Along with increasing involvement of hedge funds in commodities and derivatives (PriceWaterhouseCoopers, 2007:49-50), this has pushed mineral prices steadily upwards since around 2003. Meanwhile, technological innovations in exploration, production and environmental management have also moved the mineral frontier outwards, converting once economically uninteresting deposits into viable propositions. Finally, profit margins have increased. The revenue of the world's top 40 mining companies increased 2.6 fold between 2002 and 2006, while net profit increased more than 15-fold by 2007, and 20-fold by 2008 (PriceWaterhouseCoopers, 2007: 34; 2008: 27).

These changes appear to have shifted risk-return calculations in the sector in ways that affect decisions about where to invest. In some cases, companies have moved into environments that, though known to possess important mineral deposits, were previously considered far too difficult and dangerous to invest in. Changing technologies of social and territorial control now offer some means for controlling part of this risk. The increasing consolidation of a global private security industry provides instruments that companies can use to survey the spaces within which they need to operate. Indeed, as “new forms of capital investment are intersecting with new techniques for establishing selective political order” (Ferguson, 2006: 195), so in Africa “the countries that (in the terms of World Bank and IMF reformers) are the biggest “failures” have been among the *most* successful at attracting foreign capital investment” (ibid: 196), much of which is in extractive industries (albeit more in hydrocarbons).¹³ Indeed, Ferguson suggests that such relatively risky contexts can also be perversely attractive to investment because – to the extent that the direct areas in which operations occur can be cordoned off from the remainder of the country and so local risks reduced – they offer environments in which tax manipulations, income remittances and other practices of extra-legal profit maximization are far easier to enact (see also Frynas, 1998).

Ferguson's image of “enclaved mineral-rich patches efficiently exploited by flexible private firms, with security provided on an “as-needed” basis by specialized

¹³ Nonetheless Ferguson (2006) speaks of “The oil-like features of new mining ventures.”

corporations while the elite cliques who are nominal holders of sovereignty certify the industry's legality and international legitimacy in exchange for a piece of the action" (ibid: 204) may lie at one extreme of the relationships between investment, governance and geography that have emerged in recent rounds of mineral expansion. However, the differences from processes occurring elsewhere may be more of degree than kind. In the Andes, mining has moved into areas that have no tradition of mining but are currently used and occupied by agro-pastoral communities. This expansion has elicited protests from communities and activists alike. The response of the mining sector to these protests have made the links between mining, private security and state forces of violence more apparent. Even in these ostensibly more democratic environments, activists have been subjected to surveillance and accusations of terrorism,¹⁴ and the coupling of mining and private security accompanies all faces of the sector: from the security services afforded to executives' homes, through those employed by supply companies and onto those guarding mine installations. The more general point is that the expansion of mining has come coupled with changes in the way in which security is provided, with the state willingly delegating (or contracting out) the use of force to private actors (Campbell, 2006). The sector's expansion thus becomes an important vector of more profound changes in the relationships between state, violence and space.

Private security and the blunt instruments that Ferguson notes are not the only means through which the sector manages protest and risk as it moves into these new environments. Also important are discursive techniques that distinguish between "old mining" and "new mining," a language of dichotomies that casts as "old mining" that which damaged the environment, had dangerous workplaces, and ignored the needs of local communities. In contradistinction, the "new mining" is defined as socially and environmentally responsible, capital intensive, based on skilled labour, and in possession of technologies that ensure that environmental risk can be managed. Through these technologies - it is insisted - mining can minimize the environmental damage it produces, and in some cases even become a vehicle of environmental protection with the establishment of (conveniently person free) conservation areas around the mine site.

¹⁴ See for instance http://www.nodirtygold.org/recent_actions.cfm#20041105CQ and <http://www.conflictosmineros.net/al/html/modules.php?name=News&file=article&sid=643>

Beyond the technological and bureaucratic viability of such claims, they are interesting in other more theoretical senses. They constitute a discourse of ecological modernization *par excellence*. The mining sector becomes a vehicle for the more general argument that environmental risk can be managed, that society should therefore not be afraid in the face of such risk and that public risks are best managed privately. The rise of Corporate Social and Environment Responsibility – and the attendant argument that the best regulation of mining is self-regulation - is also part of this discourse. This is not to suggest that all CSR is a sham or without content. However, given its environmental impacts, the industry may well have seen CSR as a means “to justify their existence” (Jenkins and Yakovleva, 2006: 272, 271) while still trying to maintain control of the conditions of this existence. The combination of arguments about ecological modernization and private management of public risk has been central to this strategy. As with the link between mining and private security, the consequences reach well beyond the sector.

These discourses are, though, fragile and the continuing and escalating protests around mining suggest that many actors remained un-persuaded. One reason for this may derive from a tension between the image that the larger companies seek to project, and the ways in which production chains within the sector have come to be organized. Just as one example, much exploration work is conducted not by the “top 40” corporations but rather by smaller, often barely capitalized companies known as “juniors” (Bridge, 2004: 220, 240). The very conditions of these companies – their relative lack of capital, their consequent need to find deposits quickly in order to recoup costs, and almost by definition their lack of competent community relations teams – mean that they are far more likely to mishandle community relations, short-cut local decision making processes, and so trigger conflicts (Bebbington et al., 2007). The problem for the larger companies that then acquire juniors who have been successful in identifying deposits is that they also acquire the conflictive and difficult community relations that have been created during the exploration phase.

As investment has expanded, it has, then, moved into new territories and countries, some with no history of mining, others with recent histories of significant political disorder. To ease its entry into these territories, the industry has developed new

linkages with security provision, and has assumed new discourses on risk management, with governance implications that go well beyond the sector. At the same time, this expansion has elicited resistance and protest. The geography of mineral expansion has thus also become one of changing forms of protest and instability.

CONTESTING EXTRACTION: PATTERNS OF PROTEST

From exploitation to dispossession: changing axes of mining protest?

Mineral extraction has long been accompanied by social protest. Historically, such protest hinged mostly around the relationship between capital and labour. Though often supported by political activists, such protest was led largely by union and worker organizations. Arguments revolved around workplace conditions, the distribution of surplus and the social relations governing ownership. The scale and target audiences of such arguments were local and at most national. At times, the process of organizing around these arguments led to the emergence of national mineworkers' unions that became important forces of national political change (as in Bolivia in the 1950s).

If we consider David Harvey's distinction between capital accumulation nourished by exploitation, and capital accumulation through dispossession (Harvey, 2005), these were protests over relationships of exploitation in which workers sought higher wages, shorter working days, and shares in profits or ownership. Such protests certainly continue through to the present and recent rises in mineral prices and company profits have introduced new vigour into some workers' organizations otherwise weakened or disarticulated by neo-liberalization and mine privatization. However, the shifting and expanding geographies of mineral investment outlined in previous sections have elicited different forms of protest that articulate a range of concerns about environment, human rights, identity, territory, livelihood, and nationalism.¹⁵

¹⁵ Of course, such protests are not confined to this recent phase of global expansion – some readers will recall the campaigns against Rio Tinto on UK campuses in the 1970s and 1980s. The organization People Against Rio Tinto and its Subsidiaries was a founder of the Mines and Communities Network (www.minesandcommunities.org).

These protests differ from workplace struggles in various ways. One relates to the issues at stake. These struggles are frequently over the meaning of development rather than simply over the distribution of rent, and the actors involved assume more hostile positions vis-à-vis mining, arguing that extraction should simply not occur in a particular place, or even not at all. These can become struggles *against* development oriented towards economic growth, and *for* development as a process that fosters more inclusive (albeit smaller) economies, respects citizenship rights, demonstrates environmental integrity, and allows for the co-existence of cultures and localized forms of territorial governance (c.f. Escobar, 1995).¹⁶

Second, while worker protests could be read in terms of theories regarding the relationships between capital and labour, these more recent forms of protest can be read in terms of different theoretical arguments. For instance, the reasoning one might find among ecological economists – that orthodox economic assessments of extraction exclude many costs and misunderstand the value of nature (Martinez-Alier, 2007) - clearly underlies positions assumed by certain environmental groups. Likewise, positions assumed by more radical environmentalist groups (Acción Ecológica, 2007) are informed by intellectual arguments regarding natural capital and the limits beyond which it should not be drawn down. Among organizations that are not categorically anti-mining but *are* sceptical of arguments regarding the easy translation of mining into development, one sees concepts embedded in theories of the resource curse at work. Here we see groups arguing not against mining *per se* but rather insisting that the institutional pre-requisites for avoiding the resource curse are simply not in place. The Publish What You Pay campaign, and the Extractive Industries Transparency Initiative are relevant in this regard, as they address a central theme in the resource curse literature, namely the lack of transparency in government management of revenue from mining (Karl, 2007).

Third, the scales at which protests are pursued have changed. Increasingly, these are protests that operate *simultaneously* in the mine affected locality, the national political sphere, the home bases of companies and investment banks and along the mineral

¹⁶ This is not to romanticize such protests – indeed, less benign political and personal ambitions are also often at play.

commodity chain (cf. Tsing, 2004; Keck and Sikkink, 1998; Haarstad and Fløysand, 2007). The actors involved have also changed. Alongside local and national membership organizations, are national and transnational human rights, environmental and specialist NGOs. Different protests have become articulated either through pre-existing international networks and alliances, such as those revolving around Friends of the Earth-International, or through new alliances emerging specifically to deal with mining issues (see footnote 3). Academics working on these issues sometimes become part of these articulated networks, and Kirsch has suggested that the human rights and justice issues raised by mining demand more activist forms of scholarly engagement (Kirsch, 2006; Bebbington et al., 2007).

Some internationally networked campaigns revolve around emblematic and particularly egregious cases in which mining is linked to environmental and human rights abuses. Examples here include well known instances – such as protests against Freeport McMoRan in Papua – as well as lesser known ones, such as the Majaz/Río Blanco Copper project in Northern Peru that has articulated groups from Peru, Belgium, the UK and the US (see www.perusupportgroup.org.uk). Other campaigns have targeted individual companies (e.g. the International Day of Action Against Barrick Gold, a global protest day that included simultaneous protests in Argentina, Chile, Peru, Canada and Australia), while the No Dirty Gold campaign and initiatives to promote fair trade gold address whole commodity chains.¹⁷ Finally are those campaigns rooted in struggles for indigenous people's rights and pushing for “free, prior and informed consent” from indigenous peoples before extractive industry projects can proceed on their lands. This sheer range of international campaigns reflects the extent to which mining has become an important area of work for activist and (increasingly) advocacy oriented development groups such as Friends of the Earth-International, Oxfam-International, and the Catholic social justice agencies articulated within CIDSE (Coopération Internationale pour le Développement et la Solidarité).

A fourth difference from workplace oriented mining protests is – to return to Harvey (2005) – that these newer protests can better be understood as defensive responses to accumulation through dispossession rather than accumulation by exploitation

¹⁷ See Hilson (2008), Sarin (2006) and <http://www.nodirtygold.org>.

(Bebbington et al., forthcoming). The nature of the (real or perceived) dispossession at stake varies among cases. These have been struggles against dispossession of: land, territory, landscape and natural resources; property, self-governance, citizenship and cultural rights; and of the value inherent within the subsoil. In many cases, the rapid expansion of concessions coupled with favourable tax environments and corporate super-profits have created a sense of countries being opened up to a profound dispossession reminiscent of Galeano's *Open Veins of Latin America* (1973). These are then movements about the relationship between capital, society, environment and development and which strive to build a broader class constituency than was the case in earlier *miners'* movements

Protests around Mining: Epiphenomena or development phenomena?

The question that haunts all these protests is whether they make a difference - whether they change the course of relationships between mining and development, or whether, in the final instance, they are mere bit parts in plays scripted by mining companies and Ministries of Finance and of Energy and Mines. The question is all the more relevant given the fractures that frequently exist among sub-groups within these movements – fractures that so often prevent movements from building and sustaining more integrated narratives on mining and development alternatives (Bebbington et al., forthcoming). Here we explore evidence on the impacts (if any) of these movements at international, national and sub-national levels.

Reframing international debates?

A striking feature of the last decade of mineral expansion is the way in which it has witnessed *both* the emergence of inter- and trans-national activism and protest, *and* organized discursive changes in the industry. At a global level, the point can be illustrated by three examples. In response to rising criticism, parts of the industry sponsored the Mining, Minerals and Sustainable Development initiative between 2000 and 2002. Though reformist in tone and criticized by activist groups, the initiative (MMSD, 2002) nonetheless pushed the industry to engage with issues of environment, sustainability, indigenous peoples, human rights, and corruption in ways that had often been glossed over in the past. The Extractive Industries Review (World

Bank, 2004) was also forced by international protest targeted at the negative consequences of World Bank support to mining and hydrocarbons (Pegg, 2006). This Review ran over a similar period (2000-2004 with follow up monitoring). While Bank management did not accept several of the recommendations, the Review nonetheless forced the institution to engage with issues that up to then had been largely sidelined. How far this has changed investment practice is an open question, but it subjected the Bank Group to levels of scrutiny from which it would be difficult to turn back, and so gives activist points of leverage that previously did not exist.

The third change was the founding in 2001 of the International Council for Mining and Metals (a sort of “club” of self-styled responsible mining companies). ICMM’s creation (out of the International Council on Metals and the Environment) had much to do, however, with an increasingly explicit engagement by a number of companies with ideas of sustainable development both through MMSD and in preparation for the 2002 World Summit on Sustainable Development. To join ICMM, companies have to subscribe to its “sustainable development framework”: ten principles of social and environmental responsibility, public reporting of performance against these principles and third party verification. Of course, ICMM is *also* an instrument for generating bodies of knowledge that largely favour the industry and so could be viewed as one more variant of “green-washing” in order to protect market share. Whatever the case, these commitments once again open levers for influence and define principles against which ICMM members can be held to account through advocacy and critical publications (for instance, War on Want, 2007). ICMM has also felt obliged to engage with arguments about the resource curse (e.g. ICMM, 2006). While the conclusions they draw explain failures to translate mining into development mostly in terms of weak government and social institutions rather than a result mineral expansion *per se*, they nonetheless recognise that the effects identified by the resource curse thesis *are sometimes* encountered in practice. Indeed, one reading might be that having recognized that resource curse issues and the social mobilization that can emerge around them threaten the sustainability of large scale investments, corporations have become more aware that measures are needed not only to foster mineral sector growth but also to establish a more solid basis to ensure that this growth fosters development.

Reframing national debates in Latin America

The more interesting scale at which to consider the articulation between protest, mobilization and debates on mining and development is the national and here Latin America presents a range of outcomes. At one extreme are countries such as Honduras and Guatemala where, even in the presence of protest and activism, processes of mineral expansion have evolved more or less as industry and sponsoring embassies and bilateral aid programmes would wish.¹⁸ At the opposite extreme are cases such as Ecuador and Bolivia where activists and movement organizations have become part of government, and have taken their concerns and agendas with them. In these instances, the very institutions of government serve to amplify movement concerns, and open new domains of public debate regarding the very desirability of mining. Lying between these two extremes are countries like Peru, where protest and activism clearly shift the contours of public debates on the desirability and governance of mineral expansion, but where also, in the final instance, little real change occurs in public policies on the regulation of mining and its relationships to development.

While each country context has its own specificities, reading across cases suggests that if movements are to shift public debates in ways that stand any chance of translating into significant change in the governance of mineral expansion, then this is far more likely to occur if these movements become part of government. Such a move requires articulations between activism, social movements, and political parties (Crabtree, 2008). As debates during 2008 in Ecuador demonstrated, under certain constellations of forces this can lead to situations in which discussions of the resource curse and of the relationships between mineral expansion, environment and social conflict go as far as becoming part of the process of writing a new Constitution. Indeed, there were serious suggestions that the Constitution might ban open cast mining within Ecuadorian territory, or at least establish constitutional principles that would significantly limit the potential for mineral expansion. The tensions this

¹⁸ The role of certain embassies and aid programmes in facilitating a neo-liberalized expansion of mining and of investment by companies of the same nationality, should not be underestimated. The Canadian embassy has played important roles in Ecuador and Honduras and a group of embassies worked together in Peru.

caused between the President of Ecuador and the President of the Constituent Assembly helped make mining even more an issue of public debate.

Shifting territorial trajectories

The most visceral protests around mining occur in those territories that are directly affected. It is here that grazing lands are lost, water supplies compromised, jobs most emotively sought, existing artisanal mining displaced, and the noisy, dusty and dangerous movements of mining company trucks becomes part of everyday life. In the face of these differing experiences, and expectations, it is often the case that the expansion of mining elicits increased levels of conflict within populations. These conflicts not only pit opponents and proponents against each other, but also emerge as different groups each seek to reap their own benefits from mineral expansion. Often, such conflicts are underlain by longer-standing rivalries and differences that mining serves to amplify. The protest accompanying mining thus influences territorial dynamics by changing the socio-political atmosphere in ways that weaken a range of local institutions and produce the institutional preconditions for the resource curse to work itself out locally (Bebbington et al., 2007).

Protest *can* lead to changes in corporate practices. Mine level patterns of expansion may respond to protest, delaying moves into areas that elicit most resistance, and expanding instead on other fronts. Protest or the anticipation of protest has also led companies to increase investment in environmental technologies and corporate social responsibility programmes, even if this is with a view to weakening social organizations. How far any of these changes occur in practice depends, of course, on many factors, of which we note two. First, the relative cohesion of protest – in the presence of fractured and fragile movements, mining companies can be expected to do far less. Second is the issue of corporate culture and the varying styles and capacities that characterize different companies. This is a theme on which little is known, though it is clear that not all mining companies are the same (Jenkins and Yakovleva, 2006). Smaller scale junior companies operating with shorter term horizons are far less likely to adapt their practices. Some larger scale companies are also inclined to do little – think again of La Oroya. But certain larger transnational companies *have* shown some inclination to adapt their practices, have recognized that poor reputation

can genuinely weaken their business prospects and have sought to enhance their contributions to local development by increasing local investment, hiring more labour, and seeking negotiated settlements (Thorp, 2008).

While ambivalence characterizes the response of many local populations to mining, there have been some cases of more or less unified opposition and in where such protest has emerged early on in the exploration phase¹⁹ it has occasionally stopped mining expansion altogether – meaning that territories continue to be primarily agrarian. Some experiences have involved referenda organized by citizens and local organizations in order to gauge and project the balance of community opinion regarding mining. The emblematic cases here are Tambogrande, Huancabamba and Ayabaca in Piura, Perú; Esquel, Argentina; Cotacachi in Ecuador;, and Sipacapa/San Marcos, Guatemala (see Haarstad and Fløysand, 2007; Bebbington and Burneo, 2007; Bebbington et al., forthcoming). Though they are few in number, such cases have assumed great political and symbolic value in the world of activism, because they offer evidence that mining *can* be stopped.²⁰

The significance of such cases goes beyond the particular territories in which they have occurred, for reasons that go to the heart of the relationships between neo-liberalization and democracy. These are cases in which populations have argued that they should be able to determine the broad contours of development in their territories and that their majority view should carry more weight than do the private property rights of mining corporations or the policy preferences of central ministries committed to growth models based on market reforms and foreign direct investment. In doing so they challenge government (and corporations) to take a position on where the balance ought to lie between central government preferences, private investor rights and local participatory democracy in determining territorial trajectories. That said, local referenda can only go so far because the control and allocation of property rights in the subsoil typically resides with central ministries – to amend this system of property

¹⁹ Once the mine is in operation, protest negotiates the forms that mining will take, not whether or not it will continue.

²⁰ They have also had knock on effects on legislation elsewhere. Following the Esquel referendum, other Argentine provinces have made legislation on mining more restrictive.

would require legal and constitutional changes that local protest alone cannot deliver.²¹

Such protests draw attention to the chronically (and deliberately) weak regulation of the mining sector, and the absence of any spatial and ecologically informed planning of extractive industry development. And while they have sometimes induced government responses that tend towards the authoritarian (Bebbington and Burneo, 2008), there are also signs that they may induce parallel responses from government that open up space for a more rational regulation of the sector. The arguments around Ecuador's Constitution reflected this possibility. The ultimate working out of debates such as these will mark the ways in which – in the mining sector – the lines are drawn between neo-liberalization, state reform and democracy.

CONCLUSIONS

To the extent that the economies of China, India and elsewhere continue to grow at or around current rates, demand for minerals and building materials (and hydrocarbons) will likewise grow. This will drive further geographical expansion of mining activities with an increasing number of companies based in China, India, Brazil and Russia becoming global players. This scenario raises questions for policy, research and theory, and in this final section we focus on several of those that we consider most important and urgent.

First, consider some of the environmental challenges that mineral expansion will bring. Almost by definition this growth will take mining into new territories. Experience in Latin America is that these new territories tend to be ones of particular ecological vulnerability (e.g. see WRI, 2003). We see large scale projects being proposed for headwater areas of drainage basins and in glacial areas. We also see projects proposed for lower grade deposits, requiring the removal of proportionally more rock and the use of more water to for the same amount of mineral. In contexts of rapid deglaciation where careful water management becomes ever more important for sustainable development, this expansion will drive conflict over an increasingly

²¹ Indeed, such a regime for allocating property rights increases the likelihood that protest will become violent because it reduces what can be changed through ordinary political processes. Our thanks to one of our reviewers for this observation.

contested resource.²² While mining companies insist that their water use is highly efficient, communities and activists remain unconvinced and hydrologists tell us that the effects of removing large parts of rock in headwater areas can have non-linear, negative effects on water availability downstream.²³ Here is a whole agenda for research at the interface of the political economy of development and hydrology that has the potential not only to address practical and policy challenges, but also to understand new ways in which social forms of nature are being produced (Castree and Braun, 2001). There are also a series of connections to be explored between mining expansion, private and public management of risk and processes of ecological modernization.

These transformations also demand more work on the emergence and consequences of social movements - a more familiar terrain for political ecology. Mineral expansion will continue to drive new forms of social conflict much of which is likely to be related precisely to these pressures on water resources. This is so not only because water is of tangible importance to livelihoods but also because concerns around secure access to good quality water are likely to favour articulations across a wider geographical spectrum (between rural and urban actors along the course of the hydrological system), and also across a wider political spectrum (between both radical and reformist actors) than can concerns around rural land ownership, indigeneity, sovereignty or the abuses of transnational corporations which tend only to speak to particular sub-groups.

There are many research themes that need to be pursued here. For the movements themselves, one of the most vital regards the conditions under which, and strategies through which, they are able to institutionalize their objective. For development theory, perhaps the most important questions relate to the relationships among movement, nature and political economy. This interplay is an acutely geographical process. Not only do its outcomes produce different types of environment-society relationship, but these relationships also vary across national and international space. These variations across space are themselves inter-related, parts of wider capital

²² In more humid environments, water issues are distinct. To the extent that climate change elicits more high magnitude rainfall events, tailings management will become more challenging, with greater possibility of contaminated runoff and tailings collapse.

²³ Mark Williams, University of Colorado, personal communication, October 2006.

flows, forms of regulation, and transnational activist, technocratic and professional networks. Of course, the mining sector is hardly the only case of such global processes – an ever expanding body of work on commodity chains explores similar relationships in other sectors. Yet there is perhaps something special and specific about the mineral sector in that it generates much more, and more complex, forms of social protest than do most other commodity chains. As such it provides a particularly fruitful means for thinking about the ways in which political economy and mobilization are co-produced and at the same time produce particular geographies of development.

Third, these processes afford an interesting context in which to explore state formation and democracy under neo- and post neo-liberalization. The minerals sector has seen pro-investment institutional reforms that have dramatically and deliberately reduced the capacity of the state to govern. Reforms have typically produced regimes in which royalty payments are low, in which ministries responsible for promoting mining are also responsible for regulating its environmental impacts, in which privatized relationships play an increased role in the administration of force and security, and in which instruments for planning mineral expansion in terms of environmental vulnerabilities and existing livelihoods have been weakened or terminated.²⁴ The relationship between such regulatory instruments and social protest can flow in both directions. An absence of regulation can trigger protests when mining moves into sensitive areas that a more “rational” and participatory planning process might have deemed inappropriate. On the other hand, the political pressure exercised through protest may be a *sine qua non* for pro-poor and inclusive regulatory institutions to emerge in the first place. The intensity of conflict in the mining sector allows one to explore how far protest might induce state institutions favouring a more socially and environmentally rational regulation of the sector as well as a more equitable distribution of the value produced by mining.

This brings us back to where this paper began: the resource curse. For while the literature may have demonstrated that the resource curse is not inherent to mineral

²⁴ One of the most extreme cases was Ecuador, where until April 2008 the law was such that when a company or person requests a mining concession from the state, the state had to grant it. Once given, the concession could be renewed every thirty years in perpetuity. These rules meant that, in practice, the Ecuadorian state was unable – legally – to govern the geography of mining expansion.

expansion, there is also plenty of evidence to suggest that the *realpolitik* of the sector continues to sustain practices that neither facilitate an escape from the resource curse, nor allow governance challenges to be addressed *prior to* further mineral expansion. In such a context, it should be of no surprise that the sector continues to be so conflictive. In this context, the analytical challenge is to understand how far and in what ways this protest and activism might contribute to building pathways out of the resource curse, and help avert what could all too easily become an extractive free for all with serious repercussions for environment, society and state formation.

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