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Focus

Contention and Ambiguity: Mining and the Possibilities of Development

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Bebbington, Maria Luisa Burneo and Ximena Warnars

ABSTRACT

The last decade and a half has witnessed a dramatic growth in mining activity in many developing countries. This article reviews these recent trends and describes the debates and conflicts they have triggered. The authors review evidence regarding debates on the resource curse and the possibility of an extraction-led pathway to development. They 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 protests might contribute to an 'escape' from the resource curse, and consider implications for research and policy agendas.

INTRODUCTION

Contentious and ambiguous: two words which describe the relationship between large scale mining and development. 'Contentious' because mining has so often delivered adverse social, environmental and economic effects for the many, but significant gains only 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 article 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

2 instruments designed to keep labour cheap and controllable. Mining has
3 also been associated with palpably unsustainable patterns of development
4 and growth. The examples are legion and include: Potosí, Bolivia — once
5 comparable in size to London and a hive of extractive activity, now the poor
6 capital of a chronically impoverished department, ironically now undergoing
7 another mining boom; Appalachia — geologically wealthy yet one of the
8 USA's poorest regions; the first author's own Stoke-on-Trent, a one-time
9 mining–pottery–iron and steel complex that he watched unravel and hollow
10 out during his teenage years; and La Oroya, a Peruvian smelter town at the
11 nodal point in a regional economy of mining, declared by the Blacksmith
12 Institute to be one of the ten most polluted places in the world (Blacksmith
13 Institute, 2007; also BBC, 2006). Air pollutants are so concentrated in La
14 Oroya that children are bussed out of town during the day so they don't have
15 to breathe within the city limits (O'Shaughnessy, 2007).

16 Mining has also been associated with spectacularly unequal distributions
17 of wealth. While children and young adults die prematurely in La Oroya, in
18 New York's exclusive Hamptons the smelter's owner has built himself what
19 would, according to some, be the most expensive house in the world were
20 it ever to go on the market (Shnayerson, 2003). In earlier historical periods,
21 Bolivian tin barons accumulated fortunes that were built into national and
22 international cityscapes, while the labour reserve economy underpinning
23 Southern African mining subsidized accumulation controlled and permitted
24 by the apartheid economy. Meanwhile, mining has been the backdrop for sad,
25 sometimes tragic music — from Hugh Masakela's 'Stimela (Coal Train)' of
26 Southern Africa, to solemn *huaynos* from the central Andes of Peru.

27 Yet the arguments are never as simple as suggested by the emblematic
28 examples. Indeed, within several of the cases just noted lie seeds of compli-
29 cation. For even if the mining sector left so little behind in British regional
30 economies, mineworkers fought to the bitter end to defend the industry and
31 the regional cultures it had sustained. In Bolivia, mineworkers' unions were
32 among the most potent sources for progressive political change in the twenti-
33 eth century. Even in La Oroya, as smelters contaminate children's blood and
34 teenager cancer rates chill the observer's, much of the population defends
35 the continued existence of the smelter and of the regional mining economy
36 with which it is symbiotically linked (Fraser, 2006). Such defence of the
37 industry that scars both landscapes and lungs is found throughout time and
38 across space. The pacts between populations and the mining economy seem,
39 then, Faustian in the extreme. But pacts they are, and benefits *do* flow in
40 both directions, even if unevenly so. As June Nash (1979/1993) so percep-
41 tively titled her classic study of mining cultures and political economies in
42 highland Bolivia: 'We eat the mines and the mines eat us'.¹

43
44
45 1. Nash notes that the term was actually given to her in 1970 by a miner during a mining
46 ceremony in the department of Oruro, Bolivia (Nash, 1979/1993: ix).

2 The ambivalence towards mining so often encountered in popular culture
3 is also to be found in academic and policy writing. Conflicting views
4 have always been on offer and even if, as Rosser (forthcoming) argues,
5 ‘Prior to the 1980s, natural resources wealth was widely seen as a blessing
6 for developing countries’, analytical voices did not speak as one. The Economic
7 Commission for Latin America (among others) argued that economies
8 would be constrained by deteriorating terms of trade if they continued in
9 their dependence on the export of primary products. More recently, advocates
10 of the ‘resource curse thesis’ express similar concerns about the
11 adverse effects of mineral dependence on growth and equity (Auty, 1993;
12 Ross, 2008; Sachs and Warner, 1995). Even authors who see possibilities
13 of ‘escaping the resource curse’ suggest that if institutional conditions
14 are not right, then minerals should be left in the ground (Stiglitz,
15 2007).

16 Yet the World Bank Group and other international financial institutions
17 (IFIs) have continued to encourage countries to commit to extractive
18 industry growth as a development strategy (Campbell, 2008). Since
19 the 1990s, over ninety countries have rewritten mining and investment
20 codes (Bridge, 2004a). The industry has responded accordingly, and many
21 developing countries — both with and without a tradition of mining —
22 have seen significant increases in investment. This expansion has been
23 accompanied by social conflict and political debates around the relations
24 among mining, human rights, environmental integrity and development.
25 Such debates occur not only among activists, specialist organizations and
26 the industry: they have also been the stuff of presidential campaigns
27 (such as Peru, 2006), constitutional reform (Ecuador, 2008) and efforts
28 to craft an ostensibly post-neoliberal model of development (for example in
29 Bolivia).

30 Mineral expansion opens up theoretically urgent questions about neolib-
31 eralization, democracy and the state as well as the relationships be-
32 tween social movements and political economy. In this article we first
33 discuss ways in which these themes have been handled within literatures
34 addressing the ‘resource curse’ and socio-political dynamics in
35 mineral economies. We then discuss the parts played by different actors
36 within these relationships, with a particular focus first on international
37 financial institutions and the industry, and second on social movements
38 and activist organizations and networks. The conflicts among these
39 different actors reflect the contentiousness and ambiguity of mining’s
40 relationship to development and democracy. These very same conflicts,
41 however, might well constitute the political pathway towards the
42 construction of institutions that could foster more socio-economically
43 inclusive and less environmentally damaging forms of mineral
44 expansion.
45
46

2 **CURSES, CONFLICTS, CONTAMINATIONS: DEBATING THE ‘PARADOX OF**
3 **PLENTRY’²**

4
5 Much social science output on mining has been dominated by debates over
6 the ‘resource curse’, a thesis that gained momentum in the early 1990s in an
7 attempt to explain two decades of poor economic performance in mineral-
8 rich countries (Auty, 1993, 2001; Sachs and Warner, 1995). The thesis
9 suggests that natural resource abundance generates a series of economic and
10 political distortions which ultimately undermine the contributions of extrac-
11 tive industry to development. A parallel and related literature has drawn
12 attention to environmental and community level ‘curses’ that also accom-
13 pany mineral expansion.³ These literatures have not gone uncontested. Some
14 authors have questioned the existence of a resource curse (Davis, 1995), and
15 others challenge the methodologies and indicators that have been used to
16 demonstrate it (Brunnschweiler and Bulte, 2008), or argue that if mining has
17 been associated with poor economic and political performance this has been
18 due to pre-existing political institutions rather than mining per se (Davis
19 and Tilton, 2002; Humphreys et al., 2007). In this section we review several
20 ways in which this literature has associated mining with development. While
21 there are apparent points of convergence in these debates, this convergence
22 remains more intellectual than practical.

23
24
25 **Mining, Growth and Poverty**

26
27 At the centre of the resource curse debate is the argument that mining
28 is associated with poor growth performance (Auty, 1993; Freudenburg and
29 Wilson, 2002; Sachs and Warner, 1995; Weber-Fahr, 2002). Several reasons
30 are suggested for this. One is the idea of a ‘Dutch disease’ in which mineral
31 wealth leads to levels of consumption and investment during boom peri-
32 ods that cannot be sustained through subsequent downswings. This brings
33 exchange rate and wage effects that cripple the growth of non-mineral trad-
34 able sectors such as agriculture and manufacturing, leading to an economic
35 structure dominated by enclave economies linked to resource extraction.
36 Such effects are commonly observed in mineral-dependent economies

37
38 2. The title of Terry Karl’s classic on the resource curse (Karl, 1997). Parts of this section
39 draw on Hinojosa et al. (2008).

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

2 (Mikesell, 1997), though it is likely that the extractive sector is not the
3 only factor limiting diversification. Indeed, the introduction of new institu-
4 tional frameworks favouring a concentration of investment in mining have
5 themselves often been products of broader sets of neoliberalizing policy
6 changes, in contexts as diverse as Central Asia (Clark and Naito, 1998) and
7 the Andes (Bebbington, 2007).

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

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

37 38 39 **Mineral Dependence, Governance and Conflict**

40
41 Alongside these effects on economic structure, it is also argued that the
42 concentration of economic activity in one sector elicits socio-political and
43 institutional relationships that undermine sustainable and inclusive develop-
44 ment. Sectoral concentration implies a concentration of ownership and of
45 power — often in foreign hands — which reduces political competition in
46 policy making and institutional design, increasing the potential for capture

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2 and bias. Concentration also leads to revenue streams that are large and
3 easily identifiable, triggering struggles over their control. Mineral rents can
4 also feed the over-expansion of bureaucracy, and induce patronage, clien-
5 telism and graft that corrode the quality of government (Auty, 2008; Auty
6 and Gelb, 2001).

7 The main negative relationship between good governance and mineral
8 wealth relates to lack of transparency and corruption in the appropriation and
9 use of state revenue. There is ample documentation of political corruption
10 involving the allocation of resources to favoured constituents who, in turn,
11 favour the politicians currently in power. Meanwhile, government revenue
12 from extractive industries can undermine broader based taxation systems
13 that play a vital role in establishing a broad 'fiscal social contract' that ties
14 together citizens and governors and gives citizens certain authority to hold
15 government to account (Karl, 2007). In the absence of such a system, the
16 possibilities for unchecked corruption and poor use of public resources are far
17 greater. The more general point here is that, if 'state authority is historically
18 constructed through a series of exchange of resources for institutions' (ibid.:
19 259), then in mineral-dependent states these exchanges are not between state
20 and citizenry but rather between the state and those corporations, foreign
21 powers and financial institutions whose activities generate resources for the
22 state. These exchanges deliver institutional arrangements designed to attend
23 to the needs and demands of these latter actors rather than citizens, and
24 thus lead to an extroverted state with more legitimacy *vis-à-vis* international
25 interests than national citizens.

26 This is one of the reasons why natural resource wealth has been identi-
27 fied as a major cause of armed civil conflict (Collier and Hoeffler, 2005;
28 Ross, 2008; for a dissenting view see De Soysa and Neumayer, 2007). Over
29 the last decade much of this literature (combining the cases of both hydro-
30 carbon and mining-dependent economies) has discussed whether such con-
31 flict should be understood in terms of political and ideological 'grievance'
32 among those who bear the costs of extraction and see resource wealth be-
33 ing extracted from their territories, or rather as a consequence of strategic
34 forms of 'greed' in which revenues from natural resources motivate looting
35 or extortion from mining companies and provide opportunity for financ-
36 ing large-scale violence (Collier and Hoeffler, 2004, 2005). As Holden
37 and Jacobson (2007) show in the Philippines, both effects can operate at
38 the same time: they present evidence suggesting that mining fosters both
39 grievance and extortion-driven conflict, at the same time as it both deep-
40 ens conflicts (through the militarization that accompanies mining expan-
41 sion) and delays their resolution (because the Philippine government did
42 not want a peace deal that would cede resource rich areas to a Muslim
43 government).

44 Of course, not all conflict around extractive industry leads to armed civil
45 strife. Many conflicts are instead socio-environmental struggles over the
46 control of space, the governance of territory, access to land and water

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2 resources, the defence of human and citizenship rights, and dissatisfaction
3 over the distribution of mineral rents (Bebbington, 2007; also see
4 chapters in Peluso and Watts, 2001). Rather than view such conflicts as
5 always and necessarily a problem and an indicator of development gone
6 wrong, it is also possible to see them as potentially creative. Indeed,
7 analogies might be drawn with historical experiences in which conflict
8 has been associated with the emergence of more inclusive public insti-
9 tutions that — were it not for the conflict — would never have been
10 created.

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

21 **Mining and the Environment**

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

35 On a more local scale, mineralization is often found in headwater areas that
36 serve as sources for rural and urban water supply, or in desert areas where
37 water required for extraction and processing has to be diverted from else-
38 where and from other uses. With open pit technologies the local and regional
39 landscape transformations associated with mining become all the more
40 significant. Although an extreme case, the surface area of Minera
41
42

43
44 4. On artisanal mining see, for instance, Fisher (2007); Hilson and Yakovelva (2007).

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

2 Yanacocha's⁶ open pit gold mine in the department of Cajamarca, Peru,
3 exceeds that of the departmental capital city and is visible from outer space
4 (Bury, 2005). Meanwhile, modern mines require immense quantities of en-
5 ergy in order to operate and mine development is often accompanied by the
6 construction of dams and hydroelectric plants, or the extension of natural
7 gas based energy networks, all introducing further competition over land,
8 water and energy resources between mines and other users.

9 These and other environmental impacts have led to green accounting ini-
10 tiatives that seek to give a fuller calculation of the final economic benefits
11 of mining. Thus in Chile, one of the banner countries for the 'mining leads
12 to development' argument, conventional accounting measures suggest that
13 mining contributed between 7 and 9 per cent of the country's GDP during
14 the first half of the 1990s. However, environmental economists from the
15 University of Chile and Chile's National Commission for the Environment
16 concluded that such accounting methods 'overestimated the economic in-
17 come generated by the Chilean mining sector. . . by 20–40 per cent' (Figueroa
18 et al., 2002: 215), even when only factoring in the costs of resource deple-
19 tion. Had additional environmental and health effects of mining, such as air
20 or water pollution, also been included then the overestimation would have
21 been greater still.

22 23 **Convergences, Divergences**

24
25 Existing at the interface of academics and activism, the debates on min-
26 ing, extraction and development have generated their fair share of catchy
27 terms: 'resource curse', 'Dutch disease', 'greed and grievance'. Indeed, it is
28 perhaps because of their potential political resonance that these terms have
29 been challenged. Thus while some speak of 'the well-documented "resource
30 curse"' (Collier and Hoeffler, 2005: 625) others argue that the evidence for
31 the curse is largely an artefact of indicator choice (Brunnschweiler and Bulte,
32 2008). For its part, the industry seeks to reframe the debate in terms of the
33 'resource endowment' rather than 'curse' (ICMM, 2006).

34 As these debates have unfolded there appears to have been convergence
35 among the views of critics and boosters. Auty seems to see more scope
36 for escaping the curse (1993, 2001, 2008), while Pegg (2006: 377) 'ac-
37 cepts the *fact* that mining is potentially a great source of wealth which
38 could generate tremendous economic benefits for poor countries' (our em-
39 phasis). Meanwhile among the proponents of mining, the World Bank pub-
40 lishes material suggesting that 'countries with substantial incomes from
41

42
43 6. Minera Yanacocha is owned by Newmont, Buenaventura and the International Finance
44 Corporation. Unlike conventional mining that uses shafts to access underground veins,
45 open pit mining opens the land from the surface, involving the removal of vast quantities
46 of earth and rock, and extensive land cover change. Between 2003 and 2005 Yanacocha
moved around 200 million tons of rock per annum (Newmont, 2005 cited in Orian, 2008).

2 mining performed less well than countries with less income from mining'
3 (Weber-Fahr, 2002: 7).⁷ Authors who have criticized the idea of the resource
4 curse now conclude that perhaps mining ought not be promoted everywhere
5 in same way (Davis and Tilton, 2002).

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

16 Consistent with this focus on institutions, Karl (2007: 256) insists that 'the
17 "resource curse" is primarily a political not an economic phenomenon'.⁹
18 However, by framing the issue as a *political* problem rather than a *govern-*
19 *ance* issue, Karl also helps make explicit that it is precisely in the domain
20 of the *political* that significant divergence persists among critics and propo-
21 nents. This is so in at least two senses: the real politics of state formation
22 and the *realpolitik* of mining investment. By the former, we mean the un-
23 derstanding of how 'competent' institutions might emerge. While the IFIs
24 and others approach such institutional questions as capacity building issues,
25 historical experience would suggest that the consolidation of democratizing
26 institutions is more likely to be a product of conflict and shifts in the balance
27 of social power than an outcome of technocratic design, corporate philan-
28 thropy or the sorts of public sector management loans that the IFIs are wont
29 to offer (Bebbington and Burneo, 2008; Boix, 2008). Terry Karl notes the in-
30 stitutional and political distortions that have emerged in mineral-dependent
31 economies 'cannot be undone without a huge coordinated effort by all the
32 stakeholders involved' (Karl, 2007: 258). Disagreement persists, then, over
33 the mechanisms through which institutional change occurs (socio-political
34 processes or IFI loans?), and the time scales over which it happens (historical
35 time or project time?).¹⁰

37
38
39 7. That said, the report goes on to suggest that if compared with other countries in the same
40 region, then mineral-dependent economies performed better than non-mineral economies.

41 8. Aspinall (2007) similarly shows that the likelihood of grievance translating into sustained
42 and armed mobilization depends on deeper regional histories and processes of state forma-
43 tion.

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

46 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).

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

11 IFI practice suggests that investment is proceeding apace. In the Inter-
12 American Development Bank the private sector development group is on
13 the ascendant. The World Bank Group has continued to support programmes
14 that reform investment and mining codes, ease profit repatriation, reduce and
15 fix tax and royalty rates, and support basic geological surveying in order to
16 generate more base data on the basis of which companies can make deci-
17 sions as to where to invest in more detailed exploration (Bury, 2005;
18 Campbell, 2003: 4; Hilson and Yakovleva, 2007). Meanwhile MIGA (the
19 Multilateral Investment Guarantee Agency) is involved in large-scale mining
20 investments (Szablowski, 2002), and the IFC (the International Finance Cor-
21 poration) already has investments in several very large mines. One of these,
22 the Yanacocha mine in Peru, mentioned above, is said to be among the most
23 profitable investments in the entire IFC portfolio. Moreover, some of this
24 investment growth occurs in contexts where the Bank’s own governance-
25 sensitive analysis would suggest it should not, leading Pegg (2006: 382) to
26 conclude that ‘the [World] Bank has refused to make good governance cri-
27 teria a precondition for its involvement in the mining sector’. The relatively
28 guarded response of the Bank’s Management to the quite critical findings
29 of the Extractive Industries Review appears to confirm this view (World
30 Bank, 2004, 2005), and suggests little proclivity to slow-down investment
31 in extractive industry or demand increased *ex ante* conditions before dis-
32 bursement (Pegg, 2006). In interviews, IFI staff working in the sector will
33 argue, almost mantra-like, that even if in-country governance conditions are
34 not ideal, it is better for the bank in question to be involved in extractive
35 industry investment because from the inside they will be able to make things
36 better.

37 Campbell (2003, 2006, 2008) takes this critique further still and argues that
38 the ways in which the Bank Group has supported mining actually *undermine*
39 state capacity and *weaken* potential links between mining and development.
40 Reforms, she says, have been designed merely to increase investment, and
41 have paid scant attention to themes such as regional development, mining-
42 agriculture linkages, environmental protection or social impacts: ‘reforms
43 have had the effect of reducing institutional capacity, constraining policy
44 options, as well as driving down norms and standards in areas of critical
45 importance for social and economic development, and the protection of the
46 environment’ (Campbell, 2008: 3). In short, reforms have weakened the

2 ability of African states to perform precisely those management, monitoring
3 and surveillance roles that elsewhere the Bank suggests are essential (Weber-
4 Fahr, 2002).

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

13 **SECTOR PRACTICE AND THE SHIFTING GEOGRAPHIES OF MINING**

14
15 Over the last two decades, the international mining sector has undergone
16 changes in its global geographies of investment, ownership and demand, as
17 well as in national and local geographies of extraction. Not all these shifts
18 imply that patterns identified in the resource curse literature will persist,
19 though many of them have quite ambiguous implications for the quality
20 of governance in the countries experiencing mineral growth and also seem
21 likely to foster social protest.

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

33 This growth in the global South has been geographically uneven, with
34 some regions — and some countries within those regions — seeing far more
35 growth than others (Bridge, 2004a; Cardiff and Sampat, 2007; UNCTAD,
36 2007). Latin America has seen a steady increase in its share of global in-
37 vestment from 12 per cent in 1990 to fully 33 per cent by 2000 (de Echave,
38 2007), and during the 1990s it saw twelve of the world's twenty-five largest
39 mining *investment* projects (Bridge, 2004a). Investment in mineral explo-
40 ration in Africa is also increasing rapidly, from 4 per cent of global spending
41 in 1991 to 17.5 per cent in 1998, and overall mining investment in sub-
42 Saharan Africa doubled between 1990 and 1997 (Pegg, 2006: 383). Gold
43 mine production in Ghana increased 700 per cent over the last two decades
44 (Hilson and Yakovleva, 2007: 101).

45 There is also somewhat greater geographical unevenness in the domi-
46 ciles of companies involved in mineral extraction. By 2006, the Brazilian

2 mining company Companhia Vale do Rio Doce had ‘emerged as a full scale,
3 integrated, diversified and successful global mining giant from a regional
4 iron ore company’, becoming one of the world’s top four mining companies
5 (PricewaterhouseCoopers, 2007: 29). By 2008, the top forty companies in-
6 cluded five from China, and two from each of Russia, India and Indonesia
7 (PricewaterhouseCoopers, 2008: 50). Thus one begins to see emerging mar-
8 ket companies increasing their mining investment in Latin America, Africa
9 and elsewhere (often with support from their home states in deals which
10 combine mining and development).¹¹ Their presence is also being increas-
11 ingly felt in investment markets: news was made in 2007 when for the first
12 time a British company (Monterrico Metals) listed on London’s Alternative
13 Investment Market and with significant copper assets in Peru was purchased
14 by a Chinese consortium (Zijin).¹²

15 Geographies of demand for minerals have also shifted with East and
16 South Asia becoming progressively more important metal consumers. Along
17 with increasing involvement of hedge funds in commodities and derivatives
18 (PriceWaterhouseCoopers, 2007: 49–50), this has pushed mineral prices
19 steadily upwards since around 2003. Meanwhile, technological innovations
20 in exploration, production and environmental management have also moved
21 the mineral frontier outwards, converting once economically uninteresting
22 deposits into viable propositions. Finally, profit margins have increased.
23 The revenue of the world’s top forty mining companies increased 2.6 fold
24 between 2002 and 2006, while net profit increased more than 15-fold by
25 2007, and 20-fold by 2008 (PriceWaterhouseCoopers, 2007: 34; 2008: 27).

26 These changes appear to have shifted risk–return calculations in the sector
27 in ways that affect decisions about where to invest. In some cases, companies
28 have moved into environments that, although known to possess important
29 mineral deposits, were previously considered too difficult and dangerous to
30 invest in. Changing technologies of social and territorial control now offer
31 some means for controlling part of this risk. The increasing consolidation
32 of a global private security industry provides instruments that companies
33 can use to survey the spaces within which they need to operate. Indeed, as
34 ‘new forms of capital investment are intersecting with new techniques for
35 establishing selective political order’ (Ferguson, 2006: 195), so in Africa
36 ‘the countries that (in the terms of World Bank and IMF reformers) are
37 the biggest “failures” have been among the *most* successful at attracting
38 foreign capital investment’ (ibid.: 196), much of which is in extractive
39

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

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

2 industries (albeit more in hydrocarbons).¹³ Indeed, Ferguson suggests that
3 such relatively risky contexts can also be perversely attractive to investment
4 because — to the extent that the direct areas in which operations occur can
5 be cordoned off from the remainder of the country and so local risks reduced
6 — they offer environments in which tax manipulations, income remittances
7 and other practices of extra-legal profit maximization are far easier to enact
8 (see also Frynas, 1998).

9 Ferguson's image of 'enclaved mineral-rich patches efficiently exploited
10 by flexible private firms, with security provided on an "as-needed" basis
11 by specialized corporations while the elite cliques who are nominal holders
12 of sovereignty certify the industry's legality and international legitimacy in
13 exchange for a piece of the action' (Ferguson, 2006: 204) may lie at one
14 extreme of the relationships between investment, governance and geogra-
15 phy that have emerged in recent rounds of mineral expansion. However,
16 the differences from processes occurring elsewhere may be more of degree
17 than kind (see, for example, Leith, 2003). In the Andes, mining has moved
18 into areas that have no tradition of mining but are currently used and oc-
19 cupied by agro-pastoral communities. This expansion has elicited protests
20 from communities and activists alike. The response of the mining sector to
21 these protests has made the links between mining, private security and state
22 forces of violence more apparent. Even in these ostensibly more democratic
23 environments, activists have been subjected to surveillance and accusations
24 of terrorism,¹⁴ and the coupling of mining and private security accompa-
25 nies all faces of the sector — from the security services afforded to executives'
26 homes, through those employed by supply companies and onto those guard-
27 ing mine installations. The more general point is that the expansion of mining
28 has come coupled with changes in the way in which security is provided,
29 with the state willingly delegating (or contracting out) the use of force to
30 private actors (Campbell, 2006). The sector's expansion thus becomes an
31 important vector of more profound changes in the relationships between
32 state, violence and space.

33 Private security and the blunt instruments that Ferguson notes are not
34 the only means through which the sector manages protest and risk as it
35 moves into these new environments. Also important are discursive tech-
36 niques that distinguish between 'old mining' and 'new mining', a language
37 of dichotomies that casts as 'old mining' that which damaged the envi-
38 ronment, had dangerous workplaces, and ignored the needs of local com-
39 munities. In contradistinction, the 'new mining' is defined as socially and
40 environmentally responsible, capital intensive, based on skilled labour, and
41 in possession of technologies that ensure that environmental risk can be man-
42 aged. Through these technologies — it is insisted — mining can minimize

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45 13. Nonetheless, Ferguson (2006) speaks of 'The oil-like features of new mining ventures'.

46 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>

2 the environmental damage it produces, and in some cases even become a
3 vehicle of environmental protection with the establishment of (conveniently
4 person free) conservation areas around the mine site.

5 Beyond the technological and bureaucratic viability of such claims, they
6 are interesting in other more theoretical senses. They constitute a discourse
7 of ecological modernization *par excellence*. The mining sector becomes
8 a vehicle for the more general argument that environmental risk can be
9 managed, that society should therefore not be afraid in the face of such risk
10 and that public risks are best managed privately. The rise of Corporate Social
11 and Environment Responsibility — and the attendant argument that the best
12 regulation of mining is self-regulation — is also part of this discourse.
13 This is not to suggest that all CSR is a sham or without content. However,
14 given its environmental impacts, the industry may well have seen CSR as
15 a means ‘to justify their existence’ (Jenkins and Yakovleva, 2006: 271–2)
16 while still trying to maintain control of the conditions of this existence.
17 The combination of arguments about ecological modernization and private
18 management of public risk has been central to this strategy. As with the link
19 between mining and private security, the consequences reach well beyond
20 the sector.

21 These discourses are, however, fragile and the continuing and escalating
22 protests around mining suggest that many actors remained un-persuaded.
23 One reason for this may derive from a tension between the image that
24 the larger companies seek to project, and the ways in which production
25 chains within the sector have come to be organized. As just one example,
26 much exploration work is conducted not by the ‘top forty’ corporations
27 but rather by smaller, often barely capitalized companies known as ‘ju-
28 niors’ (Bridge, 2004b: 220, 240). The very conditions of these companies —
29 their relative lack of capital, their consequent need to find deposits quickly
30 in order to recoup costs, and almost by definition their lack of compe-
31 tent community relations teams — mean that they are far more likely to
32 mishandle community relations and short-cut local decision-making pro-
33 cesses, and so trigger conflicts (Bebbington et al., 2007). The problem for
34 the larger companies that then acquire juniors who have been successful
35 in identifying deposits is that they also acquire the conflictive and dif-
36 ficult community relations that have been created during the exploration
37 phase.

38 As investment has expanded, it has, then, moved into new territories and
39 countries, some with no history of mining, others with recent histories of sig-
40 nificant political disorder. To ease its entry into these territories, the industry
41 has developed new linkages with security provision, and has assumed new
42 discourses on risk management, with governance implications that go well
43 beyond the sector. At the same time, this expansion has elicited resistance
44 and protest. The geography of mineral expansion has thus also become one
45 of changing forms of protest and instability.
46

2 **CONTESTING EXTRACTION: PATTERNS OF PROTEST**3
4 **From Exploitation to Dispossession: Changing Axes of Mining Protest?**

5
6 Mineral extraction has long been accompanied by social protest. Historically,
7 such protest hinged mostly around the relationship between capital and
8 labour. Though often supported by political activists, such protest was led
9 largely by union and worker organizations. Arguments revolved around
10 workplace conditions, the distribution of surplus and the social relations
11 governing ownership. The scale and target audiences of such arguments
12 were local and at most national. At times, the process of organizing around
13 these arguments led to the emergence of national mineworkers' unions that
14 became important forces of national political change (as in Bolivia in the
15 1950s).

16 In the language of David Harvey's distinction between capital accumula-
17 tion nourished by exploitation, and capital accumulation through disposses-
18 sion (Harvey, 2005), these were protests over relationships of exploitation
19 in which workers sought higher wages, shorter working days, and shares
20 in profits or ownership. Such protests certainly continue through to the
21 present and recent rises in mineral prices and company profits have intro-
22 duced new vigour into some workers' organizations otherwise weakened
23 or disarticulated by neoliberalization and mine privatization. However, the
24 shifting and expanding geographies of mineral investment outlined in previ-
25 ous sections have elicited different forms of protest that articulate a range of
26 concerns about environment, human rights, identity, territory, livelihood and
27 nationalism.¹⁵

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

38 Second, while worker protests could be read in terms of theories regarding
39 the relationships between capital and labour, these more recent forms of
40

41
42 15. Of course, such protests are not confined to this recent phase of global expansion — some
43 readers will recall the campaigns against Rio Tinto on UK campuses in the 1970s and
44 1980s. The organization People Against Rio Tinto and its Subsidiaries was a founder of
45 the Mines and Communities Network (www.minesandcommunities.org).

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

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

19 Third, the scales at which protests are pursued have changed. Increasingly,
20 these are protests that operate *simultaneously* in the mine-affected locality,
21 the national political sphere, the home bases of companies and investment
22 banks and along the mineral commodity chain (cf. Haarstad and Fløysand,
23 2007; Keck and Sikkink, 1998; Tsing, 2004). The actors involved have also
24 changed. Alongside local and national membership organizations are national
25 and transnational human rights, environmental and specialist NGOs.
26 Different protests have become articulated either through pre-existing inter-
27 national networks and alliances, such as those revolving around Friends of
28 the Earth-International, or through new alliances emerging specifically to
29 deal with mining issues (see footnote 2). Academics working on these issues
30 sometimes become part of these articulated networks, and Kirsch (2006) has
31 suggested that the human rights and justice issues raised by mining demand
32 more activist forms of scholarly engagement (see also Bebbington et al.,
33 2007).

34 Some internationally networked campaigns revolve around emblematic
35 and particularly egregious cases in which mining is linked to environmen-
36 tal and human rights abuses. Examples here include well known instances,
37 such as protests against Freeport McMoRan in Papua, as well as lesser
38 known ones, such as the Majaz/Río Blanco Copper project in Northern Peru
39 that has articulated groups from Peru, Belgium, the UK and the US (see
40 www.perusupportgroup.org.uk). Other campaigns have targeted individual
41 companies (for example, the International Day of Action Against Barrick
42 Gold, a global protest day that included simultaneous protests in Argentina,
43 Chile, Peru, Canada and Australia), while the No Dirty Gold campaign and
44 initiatives to promote fair trade gold address whole commodity chains.¹⁷

45
17. See Hilson (2008), Sarin (2006) and <http://www.nodirtygold.org>.

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2 Finally are those campaigns rooted in struggles for indigenous people's
3 rights and pushing for 'free, prior and informed consent' from indigenous
4 peoples before extractive industry projects can proceed on their lands. This
5 sheer range of international campaigns reflects the extent to which mining has
6 become an important area of work for activist and (increasingly) advocacy
7 oriented development groups such as Friends of the Earth-International,
8 Oxfam-International, and the Catholic social justice agencies articulated
9 within CIDSE (Coopération Internationale pour le Développement et la Sol-
10 idarité).

11 A fourth difference from workplace oriented mining protests is — to re-
12 turn to Harvey (2005) — that these newer protests can better be understood
13 as defensive responses to accumulation through dispossession rather than
14 accumulation by exploitation (Bebbington et al., forthcoming). The nature
15 of the (real or perceived) dispossession at stake varies among cases. These
16 have been struggles against dispossession of land, territory, landscape and
17 natural resources; property, self-governance, citizenship and cultural rights;
18 and of the value inherent within the subsoil. In many cases, the rapid expan-
19 sion of concessions coupled with favourable tax environments and corporate
20 super-profits have created a sense of countries being opened up to a pro-
21 found dispossession reminiscent of Galeano's *Open Veins of Latin America*
22 (1973). These, then, are movements about the relationship between capital,
23 society, environment and development which strive to build a broader class
24 constituency than was the case in earlier *miners'* movements
25

26 **Protests around Mining: Epiphenomena or Development Phenomena?**

27
28
29 The question that haunts all these protests is whether they make a differ-
30 ence — whether they change the course of relationships between mining
31 and development, or whether, in the final instance, they are mere bit parts
32 in plays scripted by mining companies and Ministries of Finance and of
33 Energy and Mines. The question is all the more relevant given the fractures
34 that frequently exist among sub-groups within these movements — frac-
35 tures that so often prevent movements from building and sustaining more
36 integrated narratives on mining and development alternatives (Bebbington
37 et al., forthcoming). Here we explore evidence on the impacts (if any) of
38 these movements at international, national and sub-national levels.
39
40

41 *Reframing International Debates?*

42
43 A striking feature of the last decade of mineral expansion is the way in which
44 it has witnessed *both* the emergence of inter- and trans-national activism
45 and protest, *and* organized discursive changes in the industry. At a global
46 level, the point can be illustrated by three examples. In response to rising

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2 criticism, parts of the industry sponsored the Mining, Minerals and Sustainable
3 Development initiative between 2000 and 2002. Though reformist in
4 tone and criticized by activist groups, the initiative (MMSD, 2002) nonethe-
5 less pushed the industry to engage with issues of environment, sustainabil-
6 ity, indigenous peoples, human rights and corruption in ways that had often
7 been glossed over in the past. The Extractive Industries Review (World
8 Bank, 2004) was also forced by international protest targeted at the nega-
9 tive consequences of World Bank support to mining and hydrocarbons
10 (Pegg, 2006). This Review ran over a similar period (2000–04 with fol-
11 low up monitoring). While Bank management did not accept several of
12 the recommendations, the Review nonetheless forced the institution to en-
13 gage with issues that up to then had been largely sidelined. How far this
14 has changed investment practice is an open question, but it subjected the
15 Bank Group to levels of scrutiny from which it would be difficult to
16 turn back, and so gives activist points of leverage that previously did not
17 exist.

18 The third change was the founding in 2001 of the International Council
19 for Mining and Metals (a sort of ‘club’ of self-styled responsible
20 mining companies). ICMM’s creation (out of the International Council
21 on Metals and the Environment) had much to do, however, with an in-
22 creasingly explicit engagement by a number of companies with ideas
23 of sustainable development both through MMSD and in preparation for
24 the 2002 World Summit on Sustainable Development. To join ICMM,
25 companies have to subscribe to its ‘sustainable development framework’:
26 ten principles of social and environmental responsibility, public reporting
27 of performance against these principles and third party verification. Of
28 course, ICMM is *also* an instrument for generating bodies of knowledge
29 that largely favour the industry and so could be viewed as one more vari-
30 ant of ‘green-washing’ in order to protect market share. Whatever the case,
31 these commitments once again open levers for influence and define prin-
32 ciples against which ICMM members can be held to account through ad-
33 vocacy and critical publications (for instance, War on Want, 2007). ICMM
34 has also felt obliged to engage with arguments about the resource curse
35 (see, for example, ICMM, 2006). While the conclusions they draw ex-
36 plain failures to translate mining into development mostly in terms of
37 weak government and social institutions rather than a result mineral ex-
38 pansion *per se*, they nonetheless recognize that the effects identified by
39 the resource curse thesis are sometimes encountered in practice. Indeed,
40 one reading might be that having recognized that resource curse issues
41 and the social mobilization that can emerge around them threaten the
42 sustainability of large-scale investments, corporations have become more
43 aware that measures are needed not only to foster mineral sector growth
44 but also to establish a more solid basis to ensure that this growth fosters
45 development.
46

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2 *Reframing National Debates in Latin America*

3
4 The more interesting scale at which to consider the articulation between
5 protest, mobilization and debates on mining and development is the national,
6 and here Latin America presents a range of outcomes. At one extreme are
7 countries such as Honduras and Guatemala where, even in the presence of
8 protest and activism, processes of mineral expansion have evolved more
9 or less as industry and sponsoring embassies and bilateral aid programmes
10 would wish.¹⁸ At the opposite extreme are cases such as Ecuador and Bolivia
11 where activists and movement organizations have become part of govern-
12 ment, taking their concerns and agendas with them. In these instances, the
13 very institutions of government serve to amplify movement concerns, and
14 open new domains of public debate regarding the desirability of mining.
15 Lying between these two extremes are countries like Peru, where protest
16 and activism clearly shift the contours of public debates on the desirability
17 and governance of mineral expansion, but where also, in the final instance,
18 little real change occurs in public policies on the regulation of mining and
19 its relationships to development.

20 While each country context has its own specificities, reading across cases
21 suggests that if movements are to shift public debates in ways that stand any
22 chance of translating into significant change in the governance of mineral
23 expansion, this is far more likely to occur if these movements become
24 part of government. Such a move requires articulations between activism,
25 social movements, and political parties (Crabtree, 2008). As debates during
26 2008 in Ecuador demonstrated, under certain constellations of forces this
27 can lead to situations in which arguments about the resource curse and
28 of the relationships between mineral expansion, environment and social
29 conflict become constitutive of the process of writing a new Constitution.
30 Indeed, there were serious suggestions that the Constitution might ban open
31 cast mining within Ecuadorian territory, or at least establish constitutional
32 principles that would significantly limit the potential for mineral expansion.
33 The tensions this caused between the President of Ecuador and the then
34 President of the Constituent Assembly helped make mining even more an
35 issue of public debate.

36
37 *Shifting Territorial Trajectories*

38
39 The most visceral protests around mining occur in those territories that are
40 directly affected. It is here that grazing lands are lost, water supplies com-
41 promised, jobs most emotively sought, existing artisanal mining displaced,
42

43
44 18. The role of certain embassies and aid programmes in facilitating a neoliberalized expansion
45 of mining and of investment by companies of the same nationality should not be underes-
46 timated. The Canadian embassy has played important roles in Ecuador and Honduras and
a group of embassies worked together in Peru.

2 and the noisy, dusty and dangerous movements of mining company trucks
3 become part of everyday life. In the face of these differing experiences,
4 and expectations, it is often the case that the expansion of mining elicits
5 increased levels of conflict within populations. These conflicts not only pit
6 opponents and proponents against each other, but also emerge as different
7 groups seek to reap their own benefits from mineral expansion. Often, such
8 conflicts are underlain by longer-standing rivalries and differences that min-
9 ing serves to amplify. The protest accompanying mining thus influences
10 territorial dynamics by changing the socio-political atmosphere in ways that
11 weaken a range of local institutions and produce the institutional precondi-
12 tions for the resource curse to work itself out locally (Arrellano-Yanguas,
13 2008; Bebbington et al., 2007).

14 Protest can lead to changes in corporate practices. Mine-level patterns of
15 expansion may respond to protest, delaying moves into areas that elicit most
16 resistance, and expanding instead on other fronts. Protest or the anticipation
17 of protest has also led companies to increase investment in environmental
18 technologies and corporate social responsibility programmes, even if this
19 might be with a view to weakening social mobilization. How far any of
20 these changes occur in practice depends, of course, on many factors, of
21 which we note two. The first is the relative cohesion of protest — in the
22 presence of fractured and fragile movements, mining companies can be
23 expected to do far less. The second is the issue of corporate culture and
24 the varying styles and capacities that characterize different companies. This
25 is a theme on which little is known, though it is clear that not all mining
26 companies are the same (Jenkins and Yakovleva, 2006). Smaller-scale junior
27 companies operating with shorter-term horizons are far less likely to adapt
28 their practices. Some larger-scale companies are also inclined to do little —
29 think again of La Oroya. But certain larger transnational companies *have*
30 shown some inclination to adapt their practices, have recognized that poor
31 reputation can genuinely weaken their business prospects and have sought
32 to enhance their contributions to local development by increasing local
33 investment, hiring more labour, and seeking negotiated settlements (Thorp,
34 2008).

35 While ambivalence characterizes the response of many local populations
36 to mining, there have been some cases of more or less unified opposition, and
37 where such protest has emerged early on in the exploration phase,¹⁹ it has
38 occasionally stopped mining expansion altogether — meaning that territories
39 continue to be primarily agrarian. Some experiences have involved referenda
40 organized by citizens and local organizations in order to gauge and project
41 the balance of community opinion regarding mining. The emblematic cases
42 here are Tambogrande, Huancabamba and Ayabaca in Piura, Perú; Esquel,
43 Argentina; Cotacachi in Ecuador; and Sipacapa/San Marcos, Guatemala (see

44
45 19. Once the mine is in operation, protest negotiates the forms that mining will take, not
46 whether or not it will continue.

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

Such protests draw attention to the chronically 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 at least 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 neoliberalization, 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 also grow. This will drive further geographical expansion of extractive industry 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

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.

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.

2 section we focus on several of those that we consider most important and
3 urgent.

4 First, consider some of the environmental challenges that mineral expansion
5 will bring. Almost by definition this growth will take mining into new
6 territories. Experience in Latin America is that these new territories tend
7 to be ones of particular ecological vulnerability (see, for example, WRI,
8 2003). We see large-scale projects being proposed for headwater areas of
9 drainage basins and in glacial areas. We also see projects proposed for lower
10 grade deposits, requiring the removal of proportionally more rock and the
11 use of more water for the same amount of mineral. In contexts of rapid
12 deglaciation, where careful water management becomes ever more impor-
13 tant for sustainable development, this expansion will drive conflict over an
14 increasingly contested resource.²² While mining companies insist that their
15 water use is highly efficient, communities and activists remain unconvinced
16 and hydrologists tell us that the effects of removing large parts of rock in
17 headwater areas can have non-linear, negative effects on water availabili-
18 ty downstream.²³ Here is a whole agenda for research at the interface of
19 the political economy of development and hydrology that has the potential
20 not only to address practical and policy challenges, but also to understand
21 new ways in which social forms of nature are being produced (Castree and
22 Braun, 2001). There are also a series of connections to be explored between
23 mining expansion, private and public management of risk and processes of
24 ecological modernization.

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

37 There are many research themes that need to be pursued here. For the
38 movements themselves, one of the most vital regards the conditions under
39 which, and strategies through which, they are able to institutionalize their
40 objective. For development theory, perhaps the most important questions
41 relate to the relationships among movement, nature and political economy.

42
43
44 22. In more humid environments, water issues are distinct. To the extent that climate change
45 elicits more high magnitude rainfall events, tailings management will become more chal-
46 lenging, with greater possibility of contaminated runoff and tailings collapse.

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

2 This interplay is an acutely geographical process. Not only do its outcomes
3 produce different types of environment–society relationship, but these rela-
4 tionships also vary across national and international space. These variations
5 across space are themselves inter-related, parts of wider capital flows, forms
6 of regulation, and transnational activist, technocratic and professional net-
7 works. Of course, the mining sector is hardly the only case of such global
8 processes: an ever expanding body of work on commodity chains explores
9 similar relationships in other sectors. Yet there is perhaps something special
10 and specific about the mineral sector in that it generates much more, and
11 more complex, forms of social protest than do most other commodity chains.
12 As such it provides a particularly fruitful means for thinking about the ways
13 in which political economy and mobilization are co-produced and at the
14 same time produce particular geographies of development.

15 Third, these processes afford an interesting context in which to ex-
16 plore state formation and democracy under neoliberalization and post-
17 neoliberalization. The minerals sector has seen pro-investment institutional
18 reforms that have dramatically and deliberately reduced the capacity of the
19 state to govern. Reforms have typically produced regimes in which royalty
20 payments are low, in which ministries responsible for promoting mining are
21 also responsible for regulating its environmental impacts, in which priva-
22 tized relationships play an increased role in the administration of force and
23 security, and in which instruments for planning mineral expansion in terms
24 of environmental vulnerabilities and existing livelihoods have been weak-
25 ened or terminated.²⁴ The relationship between such regulatory instruments
26 and social protest can flow in both directions. An absence of regulation
27 can trigger protests when mining moves into sensitive areas that a more
28 ‘rational’ and participatory planning process might have deemed inappro-
29 priate. On the other hand, the political pressure exercised through protest
30 may be a *sine qua non* for pro-poor and inclusive regulatory institutions to
31 emerge in the first place. The intensity of conflict in the mining sector allows
32 one to explore how far protest might induce state institutions favouring a
33 more socially and environmentally rational regulation of the sector as well
34 as a more equitable distribution of the value produced by mining.

35 This brings us back to where this article began: the resource curse. For
36 while the literature may have demonstrated that the resource curse is not
37 inherent to mineral expansion, there is also plenty of evidence to suggest
38 that the *realpolitik* of the sector continues to sustain practices that neither
39 facilitate an escape from the resource curse, nor allow governance challenges
40 to be addressed *prior to* further mineral expansion. In such a context, it should

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

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2 be of no surprise that the sector continues to be so conflictive. In the face
3 of this, the analytical challenge is to understand how far and in what ways
4 this protest and activism might contribute to building pathways out of the
5 resource curse, and help avert what could all too easily become an extractive
6 free-for-all with serious repercussions for environment, society and state
7 formation.

8 It would be an interesting exercise, ten to fifteen years from now, to ask
9 how many of the sites in which readers of *Development and Change* do
10 their work have become influenced in one way or another by the mining
11 economy. Indeed, how many of us know whether the areas in which we do
12 our work have already had their mineral rights concessioned to third parties?
13 Our ability to anticipate possible futures might be enhanced if we did.

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