HARNESSING NATURAL RESOURCES FOR DEVELOPMENT: NEW LEGAL REGIMES FOR LOCALIZED BENEFIT SHARING IN THE MINING SECTOR

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ABSTRACT

Harnessing Natural Resources for Development:
New Legal Regimes for Localized Benefit Sharing in the Mining Sector

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Between 1993 and 2012, thirty-two countries around the world adopted community development in mining laws. This new public regulation approach to addressing mining's impact goes beyond mitigating the negative effect of mining on local communities (such as through compensation arrangements and environmental laws), to requiring firms and/or states to ensure that mining translates into real, positive social and economic gains for mining-affected communities, thereby redressing the inequitable distribution of mining's costs and benefits. In this dissertation, I examine variation in the adoption, design, and implementation of these laws. I argue that countries adopt community development requirements into their mining laws in order to signal to foreign investors about the property rights security of their mining projects. Community development in mining laws represent the harmonization of soft and hard law, and they enhance investment security by providing a distributive justice mechanism that addresses power and information asymmetries in

company-community relations. States with low public goods provision are likely to "pass the buck" to firms in designing community development in mining laws, because firms are seen as an institutional substitute for the state. Finally, the implementation of community development in mining laws depends on good design. Benefit-sharing institutions that rely on unaccountable local institutions can enables corruption and elite capture among local elites, undermining developmental gains. I test my arguments using large-n statistical analysis as well as case studies of Sierra Leone and Ghana.

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Chapter summary
I introduce the three puzzles that motivate this dissertation: explaining variation in the adoption of community development in mining laws; explaining variation in the design of the laws; and explaining variation in the successful implementation of the laws. I lay out the basic contours of my argument: community development in mining laws represent the harmonization of soft and hard law, and they enhance investment security by providing a distributive justice mechanism that addresses power and information asymmetries in company-community relations. I conclude with an overview of the dissertation's structure and contents.

Introduction

Some years ago, before embarking on my PhD studies, I spent an extended period of time in Sierra Leone to collect data for a research project about peace agreements. I set out to the small, now-infamous West African country to understand how the 1999 Lomé Peace Agreement had been crafted, as this agreement was critical in helping to end the country's brutal eleven-year civil war. The Lomé agreement included a wealth-sharing provision that granted the leader of the main rebel group political authority over the rich diamond fields in the east and north of the country (c.f. Binningsbø and Dupuy 2009). An additional wealth-sharing mechanism emerged out of the Lomé negotiations called the Diamond Area Community Development Fund (DACDF), a revenue sharing policy that returns a percentage of tax revenues from diamond exports to diamond-producing local communities. The DACDF is designed to ensure that local areas where diamonds are mined benefit from the resources extracted from their lands – a new concept in the history of Sierra Leone's resource governance. My and my co-author's assignment was to determine the intellectual and policy roots of the DACDF, and to collect data on its role in maintaining peace in the country.

While carrying out this fieldwork, two observations sparked my curiosity. The first observation was perhaps a natural reaction, given the high international and national expectations and efforts focused on Sierra Leone's post-war recovery. Despite the fact that the DACDF had returned a significant amount of diamond revenues to some local diamond-mining areas – which was no small feat, given that diamond export revenues had dwindled to almost nothing before the war's outbreak and remained that way during much of the war – these revenue-receiving areas still remained amongst the poorest in the country. Given the financial advantage of the DACDF for diamond-producing areas, surely these regions should have made much greater developmental gains by the time of my fieldwork, even in such a relatively short amount of time (six years). Why had the DACDF failed to produce positive development outcomes in revenue-receiving areas?

The second observation occurred during a visit to the Ministry of Mines, where I had gone to interview ministry officials about the DACDF's origins and effects. There I learned that not only were the existing DACDF procedures being revised, but an entirely new mining law was being drafted. The new law, I was told, would contain community development requirements that would be in addition to the DACDF. I knew that a handful of other countries had also adopted a legislative approach to community development in the mining sector, including Ghana (1991), the Philippines (1995), South Africa (2002), Mongolia (2006), Nigeria (2007), and Laos (2008) – but that many more countries with mining sectors had <u>not</u> adopted these laws. This variation triggered a second set of questions about the adoption of community development in mining laws: did Sierra Leone's new mining law represent a larger phenomenon of countries that were establishing legal requirements for community development? Or were the countries that had these requirements simply outliers in an industry that for many years had been characterized by the liberalization of government regulation in order to attract foreign investment (c.f. Campbell 2003)? Why had some countries chosen to adopt

community development in mining laws while others had not? What explained the choice to adopt, and the timing of adoption?

Once Sierra Leone's new Mines and Minerals Act was adopted in late 2009 and its contents revealed to the world, the nature of its community development requirements prompted two further questions. As I discuss in more detail in the empirical chapters, the law requires large-scale mining companies (for all mined commodities, not just diamonds) to enter into formal, negotiated Community Development Agreements (CDAs) with mining-affected communities. This represents a high-level requirement for companies, given the difficulties of reaching a detailed, negotiated agreement with a local community. This prompted yet another puzzle: why did politicians choose not to adopt vaguer legal provisions that simply require companies to do any kind of community development activities – why, instead, had they chosen a high-level community development requirement? And would this new requirement prove to be more successful than the DACDF in achieving socio-economic gains in mining areas?

Sierra Leone's new community development in mining legal requirement prompted a second question related to design. The contents of the new law meant that Sierra Leone would have two very different mechanisms in place for channeling mining revenues back to affected areas: a government-controlled distribution channel, and a company-controlled one. While none of the other countries previously mentioned have two mechanisms in place, they do vary in their legal approach: South Africa, Mongolia, Laos, and Nigeria place the burden of community development requirements entirely on firms, while Ghana and the Philippines had opted for government-controlled distribution of mining revenues back to affected areas for development purposes. What explained the choice to assign the legal responsibility for community development to mining companies versus the government?

These puzzles remained on my mind as I began my PhD studies, and they became even more pressing after I started to engage with the literature on corporate social responsibility (CSR) in the extractive industries. Multinational oil, gas, and mining companies have for years placed a large amount of resources in CSR programs in developing countries in order to secure a social license to operate in local areas and maintain their international reputations (Fig 2005; Kapelus 2002; Gunningham, Kagan, and Thornton 2003). A social license to operate involves "the extent to which various stakeholders can bestow or withdraw privileges from a company" (Gunningham, Kagan, and Thornton 2003, 36), and it is required when local community approval to access certain inputs and resources that are located within that community is needed, and this approval is beyond what the state can guarantee (Börzel and Risse 2010). The unwritten terms of the license are negotiated and established by stakeholders, and they depend on continuous interactions between the firm and community (Prno and Slocombe 2011). Corporate social responsibility activities undertaken by companies in order to secure a social license to operate often include socio-economic development projects that benefit the people living in resource-producing areas and who are most impacted by mining operations. As a result, there is a long tradition of voluntary community development activities in the extractive industries (Kemp and Owen 2013; Kolk and Lenfant 2010). Why, then, are some countries adopting a legal approach to community development? Are soft laws[1] and voluntary initiatives somehow insufficient for companies, communities, and governments in producing development benefits from extractive resources, thus necessitating a hard law approach? And should not a legal requirement for firms to fulfill social obligations deter, rather than encourage, foreign investment in the mining industry, given that investors normally favor less, not more, regulation?

[1] As I write in chapter 2, soft law deviates from the set and defined obligations of hard law, as well as from its precision; as opposed to hard law, adherence to soft law instruments is voluntary. Soft law mechanisms include treaties, non-binding resolutions, codes of conduct, and international principles of behavior (Abbott and Snidal 2000; Chinkin 1989).

These puzzles motivated me to look deeper into community development in mining laws on a global scale. Once I had opened the box, so to speak, I realized that Sierra Leone's policy interventions for distributing its resource revenues to the local level were part of a broader and growing international trend in mining laws. I embraced my puzzles and set out to answer them in this dissertation.

Defining Community Development

Before outlining the overarching theoretical framework that brings together my research questions, it is important to take a step back to clearly define the phenomenon that has become the subject of increased regulation in the mining industry: *community development*. I define this to mean *the provision of positive-sum socio-economic benefits to peoples living in areas negatively affected by mining operations.*

This definition reflects those put forward by both academics and practitioners. For instance, Kemp (2009) defines community development in the mining industry as "activities undertaken directly or indirectly with communities in the geographical proximity of operations that aim to achieve positive economic, environmental, and/or social outcomes for communities in which operations are located" (203). Activities that mining companies categorize as "community development" include "employment…, training and skills development, provision of infrastructure (such as roads, water and sanitation facilities), service delivery (such as health and education), employee volunteerism, donations as well non-mining-related opportunities, such as capacity building and empowerment programs" (ibid, 204). The leading mining industry association, the International Council of Mines and Metals (ICMM), provides a longer but less concrete definition:

> Community development is the process of increasing the strength and effectiveness of communities, improving peoples' quality of life, and enabling people to participate in decision-making to achieve greater long-term control over their lives. Community development aims to empower and help communities to improve their social and physical environments, increase equity and social justice, overcome social exclusion, build social capital and capacities, and involve communities in the strategic,

> assessment and decision-making processes that influence their local conditions (ICMM 2012b, 203).

As I describe further in the next chapter, the content of community development in mining laws also reflect these definitions, in that these laws call for the delivery of material benefits such as infrastructure and social service provision to mining-affected peoples. Chapter 3 gives an overview of the four ways that states have chosen to deliver these benefits: 1) through formal, negotiated agreements that are often labeled Community Development Agreements (CDAs)[2]; 2) through development programs that do not require the consent of, or negotiation with, affected communities; 3) through the establishment of specific funding mechanisms that are intended to channel mining sector revenues to socio-economic development projects in affected communities; and 4) through formalized community control over benefit sharing, such as through equity sharing in mining operations.

Community Development in the Mining Industry: Property Rights Security Through Distributive Justice

I answer three puzzles in this dissertation: what explains variation in the adoption, design, and successful implementation of community development in mining laws. But what is the link between these three questions, beyond being mere puzzling phenomenon? The overall argument that I put forward to answer these puzzles is one that connects key questions in the fields of comparative and international political economy: security of property rights for investors, and income distribution. In

[2] A CDA is defined as "any negotiated agreement between industry (mining sector) and communities agreeing how these communities will access development initiatives" (Sarkar et al 2010, 2). A CDA is a formal, written agreement designed to "impose obligations on each participating entity and…affect the distribution of costs and the allocation of benefits from a project" (O'Faircheallaigh 2012, 3), with the goal of improving the welfare of mining-affected local communities and reducing conflict surrounding mineral extraction. Firms are required by law to enter into community development agreements (CDAs) in Australia, Canada, Sierra Leone, Nigeria, Guinea, Mali, South Sudan, Afghanistan, and Yemen. CDAs are also used in contexts where they are not legally required, such as Ghana. In contexts such as Australia, and some provinces in Canada, CDAs are termed "impact and benefit agreements". For more on Australia and Canada, see O'Faircheallaigh (2008) as well as the websites of the IBA Community Toolkit (http://www.ibacommunitytoolkit.ca/) and the Impact and Benefit Agreement Research Network (http://www.impactandbenefit.com/)

short, I argue that countries adopt community development provisions into their mining laws to increase investment security for foreign investors through alignment of hard and soft law. This alignment revolves around the creation of a distributive justice mechanism that resolves the commitment problem between companies and communities that lies at the heart of investors' insecurities and that can potentially make mining-affected communities better off as a result of operations.

Resource-rich but poor states generally need foreign investors to extract their resources due to a lack of domestic skilled human capital as well as financial capital to exploit their own resources (Humphreys, Sachs, and Stiglitz 2007). Governments want to extract natural resources to generate income, but they are constrained by the lack of knowledge about their own resource reserves and the ability to extract it. Companies have leverage in this situation: they have the knowledge, expertise, and finances needed for exploitation (Collier and Venables 2011). Consequently, the mining sector of many countries is heavily dependent on foreign direct investment.

But the availability of mineral deposits does not automatically result in investment. Rather, investors must weigh a number of risk factors in deciding whether or not to invest. One of these is the ability to turn a profit. Firms are motivated to maximize profits, and thus their financial incentives are to negotiate contractual terms that favor them, for instance by acquiring access to resources at below-market value (ibid). They also favor reduced regulations in order to lower the costs of fulfilling legal requirements. Legal requirements to conduct in-depth environmental impact assessments, pay high royalties or other taxes and fees, engage in local sourcing of supplies and employment, or that restrict foreign ownership increase a company's compliance burden and thus its operational costs. In the 1980s and 1990s, the push for profit entailed that many minerals- and metals- rich governments liberalized their mining laws in order to attract foreign investment into the

mining sector, with royalties and other requirements lowered or removed and state involvement in the sector minimized (Besada and Martin 2013; Campbell 2003, 2009, & 2010).

In the company-government relationship, government does retain one significant advantage over companies. Power and information asymmetries between the two parties due to the government's role as sovereign authority over the territory under its control means that foreign firms cannot be entirely sure that the government will respect the contractual terms of any mining agreement. Government's incentive to renege on the terms of a mining contract is a commitment problem known as the "obsolescing bargain", defined as a negative post-investment shift in the relative bargaining power of companies (Stevens 2008; Vernon 1971; Menaldo forthcoming). This type of "resource nationalism" can entail a variety of behaviors from outright and total expropriation of mining projects to simply raising companies' tax burdens beyond what was initially agreed upon. The threat of the obsolescing bargain poses a dilemma for foreign investors, in that the highly asset-specific nature of mining operations entails that if government reneges on the initial mining contract, investors have no exit option. That is, they cannot simply uproot on short notice and set up shop in a different jurisdiction, due to the geographic specificity of metal and mineral endowments and because of the significant infrastructure investment, detailed licensing procedures, and large capital and skilled labor requirements it takes to extract those resources. Companies are forced either to endure the new and less favorable contractual terms, or to shut down operations (a more costly solution).

But investment insecurity no longer stems only from company-government power asymmetries, but also from company-community power asymmetries. The people living in proximity to areas of operation (what I term "local communities" in this dissertation) can also change the terms of the social (if not also the legal) contract that exists between company and community – that is, the approval granted by a community to operate on their lands. Changes in international norms

via the global spread of human rights have heightened local communities' awareness about the obligations of states and companies to respect citizens' rights. The dramatic global growth and spread of civil society organizations, connections to transnational advocacy networks and news media, and improved access to international arenas that push states to recognize citizens' basic human rights entail that local communities now have an outlet to voice their opposition to mining operations, mobilize material resources to organize collective action, and acquire legal recognition of their claims (Macintyre 2007). It also means that communities may be more willing to resort to violent, operations-halting actions to force recognition of their grievances, striking at the Achilles heel of extractive companies' reputations as good corporate citizens. As never before, local communities "now expect, and have the power to demand, to be consulted to be influential" (Haddow 2013, 84).

While liberalization of mining laws in the 1980s and early 1990s may have attracted increased foreign investment through more favorable financial terms for companies, a reduced regulatory framework at the same time left those same investors very vulnerable on the societal front since social and environmental concerns were legislatively marginalized in order to attract investment. This time period saw many resource-rich countries mired in armed conflicts, rampant corruption, and terrible human rights and environmental abuses in which international extractive industries companies were directly involved. For instance, Shell Petroleum Company's operations were creating environmental and livelihoods destruction in the Niger Delta, and the company was complicit in the Nigerian government's 1996 execution of Ken Saro-Wiwa, the leader of a transnationally-linked environmental justice movement in the Niger Delta (Litvin, 2003). That same year, the international NGO Global Witness revealed that the South African diamond mining company DeBeers was purchasing diamonds from Angola's UNITA rebels, and that diamonds from a number of other African conflicts were also supplying the world market.

The reputational costs of these behaviors resulted in the emergence of a soft law regime for oil, gas, and mining companies. As I discuss in more detail in chapter 2, this regime has taken the form of a plethora of private voluntary initiatives and global standards aimed at ensuring that corporations respect and uphold human rights standards in countries of operation, to include the rights of local communities in areas of operation. But by the turn of the century, a serious gap between international norms and domestic laws existed. To rescue their international reputations, multinational extractive industry companies had been adhering to voluntary standards, fulfilling the social requirements of international financial institutions, and running corporate social responsibility programs in and for local communities. Yet these initiatives failed to solve a key problem for investors, which I discuss further in the next section: resolving company-community information and power asymmetries about the security of their investment.

The source of property rights insecurity for mining investors is not only government expropriation, but also community opposition to operations. The risk that mining investments will fail because of local-level opposition increases when there is no enforceable distributional guarantee for mining-affected local communities. Mining companies can hedge against the anticipated future political risk posed by government and the obsolescing bargain via favorable terms in mining production agreements, free trade agreements, bilateral investment treaties, compensation payments, and other mechanisms (see Menaldo forthcoming). But these measures don't necessarily lower the political risks posed by community opposition to mining operations. This is a problem of incomplete contracting: the difficulty of anticipating every single possible scenario in a contract between two parties, such as a change in the price of a key input (Hart and Moore 1999). Incomplete contracting occurs because of asymmetric information about future events and about actors' incentives to commit to upholding the contract rather than engage in opportunistic behavior (ibid; Abbot and Snidal 2000).

Soft law mechanisms are unable to fully protect firms against the political risk posed by local communities, and thus can exacerbate the problem of incomplete contracting. Hard law can fill the gap, given its advantages over soft law in terms of creating credible commitments (since law is enforceable), limiting opportunistic behavior, and decreasing information asymmetries about actors' incentives (ibid). Hard law also reduces the transaction costs of contracting in the case of mining operations by clearly delegating authority to companies and/or governments for the provision of benefits to mining-affected local communities, and clarifying what those benefits should entail.

In sum, soft law is no longer superior to hard law as an institutional arrangement for mining companies in their relationships with local communities (ibid). The time for hard law to catch up to international norms and to uphold the same standards found in soft laws – and thus reassure companies about the security of the social environment – had arrived. States began to turn to hard law in order signal to foreign investors that property rights over their investments will be secure.

The Distributional Dynamics of Company-Community Relationships

In the preceding section, I outlined the interplay between national governments, foreign investors, and normative standards that shape companies in their investment behaviors. But there is also a domestic-level game at work between firms and domestic actors. Firms want to invest in resource-rich states, but lack information about the quality of the investment environment and commitment of actors to the terms of investment. Will governments respect the legal contracts for mining projects? More importantly, will local communities uphold the social contract? What, in fact, is the social contract? I argue that harmonization between domestic law and international standards in the form of a community development in mining law can increase the security of firms' investments by creating a distributive justice mechanism that resolves company-community power and information asymmetries. This reflects recent advances and insights in the scholarly work on the so-called resource curse that institutions are important for shaping the political, social, and economic

outcomes of resource wealth: that is, hard law as an institution is important both for incentivizing the investments needed to get minerals out of the ground and for incentivizing citizens to allow operations to continue uninterrupted.

At the heart of company-community power asymmetries are questions about the distribution of the costs and benefits of resource exploitation. In terms of the benefits of extraction, particularly the financial benefits, who in society should get what, when, and how (Bradley et al 2003; Smith and McDonough 2001)? What should determine how rewards and costs are distributed in society (Roemer 1998)? How should society allocate scarce resources among individuals? These are questions of distribution, and more specifically of distributive justice or fairness. Policies and laws are governments' means of answering these questions. Weakened domestic regulations have entailed little accountability for corporate behavior, as CSR programs put communities at the mercy of companies' decisions as to whether or not to uphold voluntary commitments. As a result, communities and societies have traditionally shouldered the burden of extraction, suffering from serious environmental and livelihoods destruction. A community development in mining law can reverse this inequitable distribution of mining's costs and benefits.

But while government may put higher regulatory standards into place in the form of a community development in mining law, such regulations must also be implemented. Governments can succeed or fail at implementation, leading to the final question of this dissertation: what explains distribution policy success – but more interestingly, what explains policy failure? Why, given politicians' incentives to support policies that improve citizens' well-being and thus improve politicians' chances of staying in power, do welfare-improving policies sometimes fail (Bueno de Mesquita et al 1999)? In the empirical chapters that follow, I engage with the various strands of literature on each of these distributional questions.

Distributional questions go to the heart of the scholarly debate about the so-called "resource curse", or the "paradox of plenty": the notion that countries with an abundance of natural resources are more likely to be poor and to experience civil war and authoritarian government (Ross 2015). Explanations for these outcomes abound. Countries that are heavily reliant on high-value natural resources fail to grow rich for several reasons: the volatility of commodity prices on world markets, a failure to diversify economically, currency appreciation, and a crowding out of markets key to growth like manufacturing, among other things (Frankel 2010; Collier 2007). Natural resource abundance gives dictators the means to repress dissent or to buy popular compliance, rather than seeking popular support through the ballot box (Ross 2001). Finally, large resource wealth can trigger armed conflict as populations take up arms against regimes for reasons of "greed" or "grievance" (Collier and Hoeffler 2005; Humphreys 2005; Ron 2005). That is, citizens fight to wrest control of resource revenues away from the government for personal benefit, or to voice anger over government's mismanagement of resource revenues.

Revenue mismanagement plays a strong role in why each of these negative outcomes occurs. The extraction and production of natural resources such as oil, gas, mining, forests, fisheries, and hydropower often create (or have the potential to create) large revenues for the governments that control these resources. Yet over and over again, politicians fail to harness revenues in ways that would make their societies richer, freer, and more peaceful. Instead, they choose not to use resource revenues to fund economically productive activities such as education or investment in the manufacturing sector (Gylafson 2001). They misuse revenues to keep themselves in power and/or line their personal pockets, fomenting popular dissent and stifling political development (Humphreys, Sachs, and Stiglitz 2007). And politicians also fail to ensure that those who live in resource-producing areas benefit financially from the riches extracted from their lands and to compensate them for the costs of doing so, creating an imbalance in who benefits and who suffers.

This creates local-level inequalities and ultimately grievances that can ultimately cause social upheaval.

Why does revenue mismanagement occur? The answer lies in the insights of a recent, key turn in the "resource curse" literature: the argument that resources themselves do not cause good or bad outcomes for countries. Rather, the underlying political institutions of a resource-rich society determine the outcomes of resource wealth, including the institutions set up to manage resource wealth (Menaldo forthcoming; Atkinson and Hamilton 2003; Mehlum, Moene, and Torvik 2006; Haber and Menaldo 2011; Heilbrunn 2014). As Menaldo (forthcoming) argues, states with weak institutions are more likely to heavily rely on resource exploitation for revenue generation, since these states lack the institutional foundations critical for economic development like inclusive property rights and tax collection infrastructure. Resource-rich but weak states are also likely to lack the institutional foundations for good resource management. Instead of institutions providing incentives for government agents to use resource revenues to ensure the welfare of citizens, weak resource management institutions create incentives for rent-seeking. But, as I argue in this dissertation, a pre-existing state of weak institutions does not preclude resource-rich states from trying to change course through the creation of new and better institutions, including ones designed to more fairly distribute the costs and benefits of resource extraction and production in society. In fact, doing so is vital, as legal institutions (laws and policies) are the rulebook for the distribution of costs and benefits – and the foundation for investment security.

Conclusion

In the three empirical chapters that follow, I lay out in greater detail my argument that community development in mining laws enhance investment security via soft and hard law harmonization, and I provide evidence to substantiate my argument. Chapter 2 explains the rationale for adopting community development legal requirements in the mining industry. Through large-n statistical

analysis and illustrative case study work, I show how states are adopting community development in mining laws in order to align hard and soft law and thereby attract foreign investment. Community development in mining laws serve as a signal to the international community about an important feature of a country's investment climate: property rights security.

Chapter 3 examines why community development in mining laws vary in terms of who is assigned responsibility for carrying out community development. Resource-rich governments realize that companies need investment security guarantees in the form of specific social obligations in domestic law. Yet poor states in particular are unable to fulfill these obligations, and they are likely to instead "pass the buck" for this to firms.

Finally, chapter 4 analyzes why, despite the seemingly good intentions behind community development in mining laws, these laws may fail to produce positive-sum benefits for affected areas. Policy failure is often a function of poor design choices. When revenue sharing institutions established for community development in mining areas contain design features that enable corruption among local elites in the receipt and use of these legislated funds, equitable financial benefit sharing in mining-affected local communities is unlikely to occur as intended. Alternatively phrased, where revenues are distributed through existing, weak local-level institutions that do not constrain elites from misappropriating resource wealth, revenue sharing policies are likely to fail.

I conclude in chapter 5 with a reflection on my key findings and contributions, and sketch a future research agenda that calls for further inquiry into the outcomes of community development in mining laws, a more comprehensive examination of sub-national resource-related revenue flows, and analysis of procedural and distributive justice questions in natural resource management.

CHAPTER 2: EXPLAINING VARIATION IN THE CROSS-NATIONAL ADOPTION OF COMMUNITY DEVELOPMENT REQUIREMENTS IN MINING LAWS

Chapter summary
What explains the spatial and temporal variation in the adoption of community development in mining laws? Between 1986 and 2012, 32 countries around the world adopted community development requirements into their mining laws. This new public regulation approach to addressing mining's impact goes beyond mitigating the negative effect of mining on local communities (such as through compensation arrangements and environmental laws), to requiring firms and/or states to ensure that mining translates into real, positive social and economic gains for mining-affected communities, thereby redressing the inequitable distribution of mining's costs and benefits. I test my argument that community development in mining laws are a harmonization of soft and hard law, designed to increase the security of firms' investments by creating a distributive justice mechanism that resolves company-community power and information asymmetries. I test, and find support for, my argument through a combination of statistical analysis and a case study of regulatory reform in Sierra Leone using a new dataset I constructed and extensive qualitative data collected in-country.

Introduction

Over the last twenty years, community development programs have achieved prominence in the corporate social responsibility (CSR) activities of mining firms (Hamann 2003; Newell 2005; Eweje 2006; Kemp 2009 & 2010; Kemp and Owen 2013). Industry-led development programs deliver social and economic benefits to local communities in the form of public goods and services to communities. These benefits include basic infrastructure like roads, schools, water wells, and hospitals, as well as educational scholarships, health services, and agricultural and small business assistance.

A large and growing academic and policy-based literature has examined the motivations for firms to voluntarily implement community development programs (Kapelus 2002; Jenkins 2004; Yakoleva 2005; Kemp and Owen 2013; World Bank 2012). Mining companies of all types, including multinationals and domestic firms, are concerned with formulating a positive reputation in the eyes of foreign and domestic stakeholders, pre-empting the adoption of regulations that raise operational

costs, and maintaining a social license to operate within the local communities living in geographical proximity to their areas of operation. To address these concerns, many mining companies – particularly multinationals – have turned to a growing number of voluntary industry standards and global governance regimes that contain provisions regarding company-community relations (Jacobs 2013). International financial institutions have also laid down specific requirements for companies receiving funding regarding the treatment of local communities. As a result, a strong global governance regime has emerged to govern the social conduct of mining companies.

Yet, despite the widespread implementation of voluntary community development programs and adherence to global standards by mining firms, resource-rich states around the world are increasingly turning to hard law to force mining companies, and in some cases the government itself, to carry out socio-economic development projects in mining-affected communities. Between 1986 and 2012, thirty-two states adopted new provisions into their mining laws that require firms and/or governments to generate positive socio-economic outcomes for local communities affected by mining operations. This poses a puzzle. The conventional wisdom is that multinational firms adhere to soft laws and voluntarily carry out CSR in order to dampen pressure for increased regulation (Kapelus 2002). But voluntary standards in the mining industry for community development abound, and in some cases have even had positive effects on community welfare. Why, then, do states find it necessary to put community-level social obligations into law? Why is hard law mirroring, or catching up to, soft law?

To date, the global upward trend in the adoption of new social provisions into hard law has been overlooked by scholars working at the nexus of natural resource management, corporate social responsibility, and socio-economic development. In this chapter, I explain the variation in the adoption of community development requirements into mining laws across space (countries) and

over time. While one-half of the world's major mining producer countries (10 out of 20)[3] have adopted community development requirements into their mining laws, not all mining producer countries have adopted these laws. Understanding the variation in the adoption of community development in mining laws is important because these laws represent a new approach to natural resource management, wherein states appear to be directly regulating social investment in the mining sector in an effort to reverse the paradoxically negative effects of natural resource wealth (McNab et al 2012).

I proceed as follows. First, I provide a descriptive snapshot of the spread of community development requirements that were adopted into the mining laws of countries around the world between 1986 and 2012. I then discuss the puzzling nature of their adoption and lay out my main theoretical argument, which is that community development in mining laws enhance investment security via soft and hard law harmonization. Specifically, resource-rich states adopt these laws to create a distributive justice mechanism that signals to foreign investors that property rights over mining projects will be secure. I test my argument as well as two alternative explanations on a dataset of 124 countries with mining sectors from 1993 to 2012. I employ an event history approach and control for key domestic- and international-level variables. I find that foreign direct investment is a significant predictor of the adoption (or "onset") of community development in mining laws. I then discuss Sierra Leone's regulatory reform of 2009 to illustrate my findings in greater depth. I conclude with reflections on the implications of my findings.

A New Approach to Providing Benefits to Mining-Affected Communities

Between 1986 and 2012, thirty-two out of 124 countries with mining sectors adopted new, or amended existing, mining laws. These laws mandate firms and/or governments to carry out socio-

[3] Numbers are calculated based on data from the International Council on Mining and Metals (2012a). "Major mining producer" is defined in terms of mineral production in current US dollars. The twenty countries on the ICMM list contribute 88% of the world's production of minerals and metals.

economic development projects in communities that reside in proximity to mining areas – the "population that is significantly affected by a nearby mining operation" (Veiga, Scoble, and McAllister 2001, 192), or that is in the "immediate impact zone" (Kemp 2009, 202).[4] Required projects include infrastructure and social service provision as well as the establishment of trust funds for these purposes.

These laws represent a potentially important advance for mining-affected local communities, who are often hardest hit by the negative externalities of mining, including livelihood destruction when land and water sources are used for mining, pollution and toxic waste, and through the influx of migrant laborers. Mining projects represent a conundrum for local communities: in many cases, "mining operations are sometimes the only viable option that remote communities have for social development" (Kemp 2009, 202). Yet communities generally do not benefit much from mining operations, either because regional or national elites instead capture the benefits, or because there are no mechanisms for redistribution of resource revenues back to the areas from which those resources are extracted (ICMM 2012b). As Davis and Tilton (2002) point out, "local communities tend to bear most of the environmental and other social costs associated with mining, while the benefits flow largely…elsewhere" (11). In some cases, rather than being areas of local economic growth, mining-affected communities are among the most impoverished in a country. For example, gold mining areas in Western Ghana are among the poorest areas of Ghana, as are the diamond mining areas of Sierra Leone, despite the large amount of mineral resources flowing out of these

[4] There is no universally accepted definition of the terms "local communities" or "mining affected areas" in terms of which individuals and groups should benefit from community development activities. Often what is meant colloquially by the term "local community" is "a small spatial unit, as a homogenous social structure, and as common interests and shared norms" (Agrawal and Gibson 1999, 629). But community development in mining laws identify beneficiary communities in many different ways: as those that are (or can be expected to be) impacted or affected by extractive activities; geographically, as the population living near to an extractive project, or in the license area, or in the legal jurisdiction in which a project takes place; through geographically-tied cultural identity, as people residing near to a mining area that have a common identity, interest, and/or claim on land in a project area, such as indigenous peoples; through control over property rights, where communities are the holder or owner of land rights in the project area; as the local government unit or traditional authority with jurisdictional authority over the project area; or as the population identified in a mining lease agreement or other document, such as an Environmental Impact Assessment.

areas. Resource wealth can therefore heighten both vertical inequalities (those between individuals), as well as horizontal inequalities (those between groups of people) (Ross 2007).

Community development in mining laws represent a new institutional pathway to try to overcome the so-called resource curse – that is, to mitigate the well-documented negative outcomes of resource wealth, turning a curse into a blessing (Ross 2015; Haber and Menaldo 2011). These laws target the distribution of resource revenues and other material benefits to the sub-national level, mandating the provision of public goods and services that can boost economic growth and improve individual and collective well-being. National-level developmental gains from resource wealth hide the inequitable distribution of the costs and benefits of mining (Söderholm and Svahn 2014). It is therefore critical to study the adoption of new regulatory tools that mandate the targeted creation of positive social and economic gains for those who bear the greater costs of mining and that ensure that more people in resource-rich countries can actually benefit from mineral resources.[5]

In Table 1, I list the countries that adopted community development requirements into their mining laws between 1986 and 2012. Figure 1 is a map of the countries that have adopted these laws. Appendix 1 provides more detail about each country's legal requirements and the pending requirements. Figures 2 and 3 depict the upward trend in the adoption of community development in mining laws, first per year and then cumulatively during the entire study period.

[5] Besides general public goods spending and redistribution of mineral revenues, there are several other ways in which the state plays a role in the direct distribution of benefits to mining-affected communities. The first is through the *legal recognition of indigenous land rights*, which in practice empowers indigenous communities to directly negotiate the provision of socio-economic benefits with mining companies. However, this has occurred in only a handful of states, such as Norway, Canada, Australia, and Finland. The second way is through *recognition and enforcement of strong communal land tenure rights*, which can in some cases force mining companies to directly negotiate rights to land and mineral rights with local communities, resulting in provision of community development benefits. Finally, when governments *(re)negotiate the terms of mining leases with mining companies*, they can require that mining companies implement community development projects in the new mining agreements. This occurred in Liberia when the government renegotiated Arcelor Mittal's mineral development agreement, and also in Ghana when AngloGold Ashanti's agreement was renegotiated; both companies are required to establish and contribute to social development trust funds that benefit communities in mining areas. I do not include recognition of indigenous land rights or types of land rights systems in my analysis of law adoption, as these laws do not directly call for community development in mining-affected areas; rather, community development programs are their (sometimes unintended) outcome. I also do not include contract renegotiation, or the adoption of voluntary community development agreements by mining firms and local communities, since the unit of analysis in my data is the adoption of a new law or policy that requires community development in mining areas.

TABLE 1: States With Community Development Laws (1986 – 2012)	
China (1986)	Laos (2008)
Ghana (1991)	Central African Republic (2009)
Papua New Guinea (1992)	Ecuador (2009)
Colombia (1994)	Indonesia (2009)
Philippines (1995)	Sierra Leone (2001, 2009)
Nicaragua (2001)	Ethiopia (2010)
Canada (2002)	Afghanistan (2010)
Democratic Republic of Congo (2002)	Kazakhstan (2010)
Mozambique (2002)	Vietnam (2010)
South Africa (2002)	Yemen (2010)
Peru (2004)	Zimbabwe (2010)
Equatorial Guinea (2006)	Guinea (2011)
Fiji (2006)	India (2011)
Mongolia (2006)	Mali (2012)
Niger (2006)	Kyrgyzstan (2012)
Nigeria (2007)	South Sudan (2012)

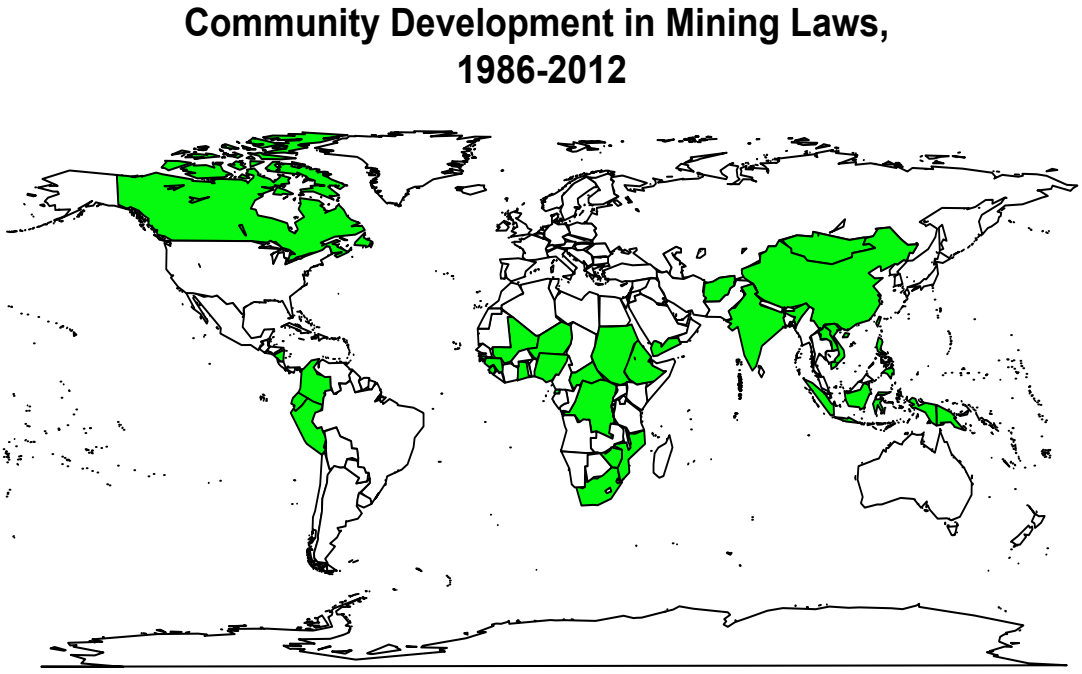

Figure 1: Map of countries where community development in mining laws have been adopted. Examples of countries with large mining sectors (measured as mining exports as percentage of GDP) that have NOT adopted these laws include Angola, Armenia, Bolivia, Botswana, Brazil, Chile, Cuba, Georgia, Guyana, Iran, Mauritania, Mexico, Namibia, New Zealand, Russia, Suriname, Ukraine, Uzbekistan, and Zambia.

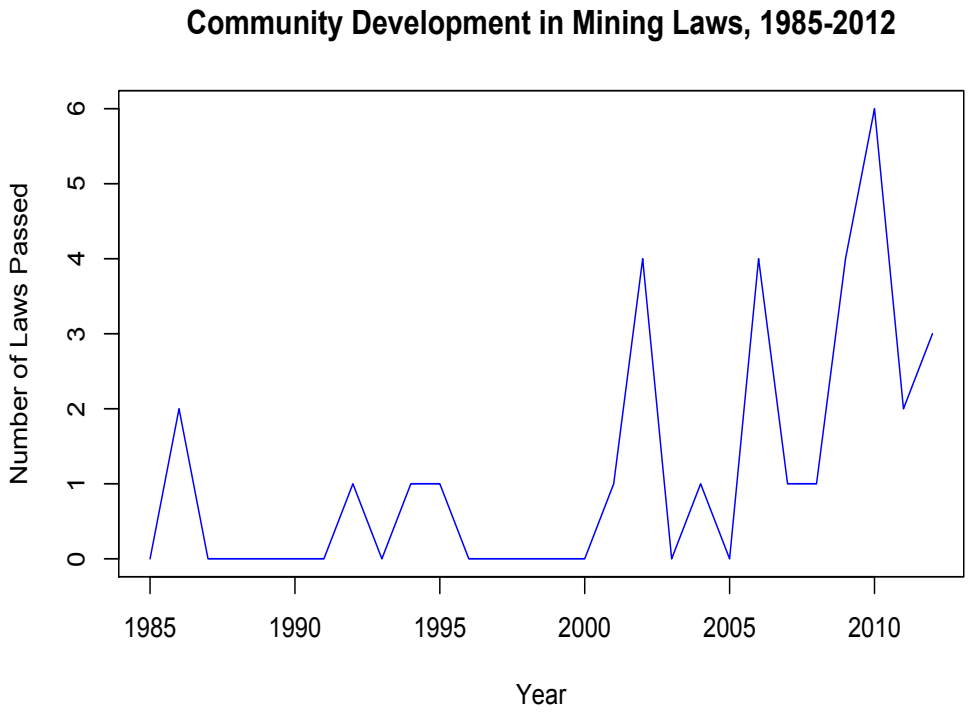

Figure 2

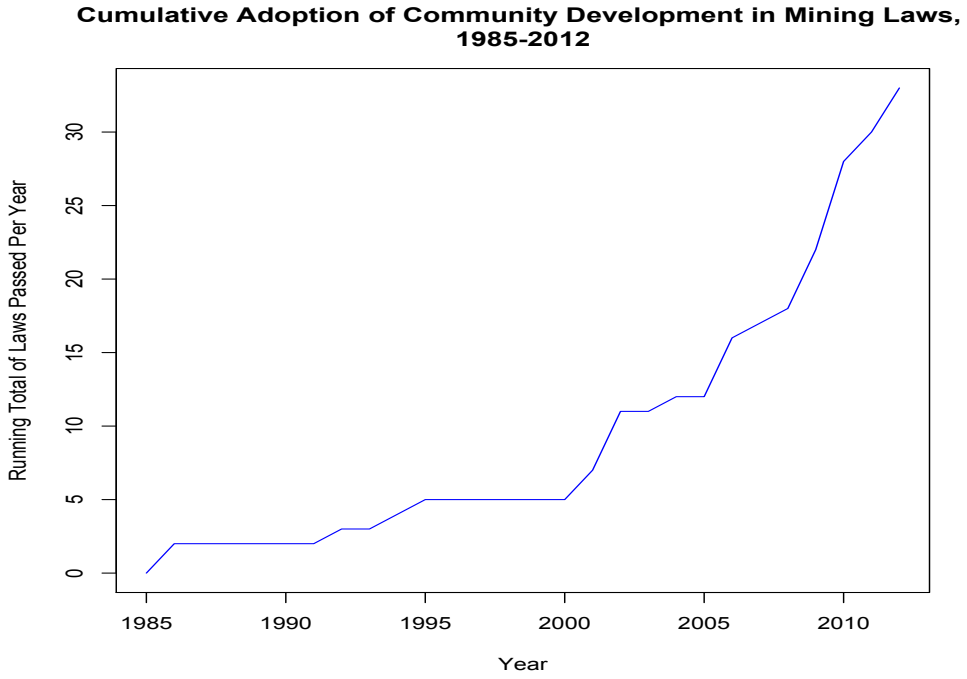

Figure 3

The Puzzle of Progressive Mining Law Reform

The adoption of community development in mining laws is puzzling for three reasons: first, the spatial and temporal variation in their passage; second their adoption despite the influence of strong systems of transnational private regulation and soft law; and third, their potentially negative impact on foreign direct investment in the mining sector.

First, a cursory look at the data on the mining sectors of the 124 countries in my dataset indicate that adoption of community development in mining laws does not vary by the economic salience of the mining sector or by the type of resource being mined. While some countries with large mining sectors such as Guinea and South Africa have adopted mining laws that mandate community development, other states with large mining sectors, such as Angola and Zambia, have not. These countries mine similar resources: diamonds are mined in Angola and South Africa, and copper in Zambia and South Africa. Moreover, most of the countries that have adopted community development in mining laws (27 out of 32) did so after the year 2000 (see Table 1). Why have some mining countries chosen to include community development requirements into their mining laws, while others have not? And what explains the timing of adoption?

Second, strong international norms exist within the mining industry and the international community more generally regarding sustainable development, accountability in how firms and states receive and use resource revenues, and how firms should behave towards local communities while mining. These norms have evolved and strengthened over the years since the 1992 Rio Declaration on Environment and Development, which introduced the concept of sustainable development and stipulated that states have the sovereign right to exploit their own resources for developmental purposes. Twenty years later, the 2002 World Summit on Sustainable Development

in Johannesburg recognized the contribution of mining to sustainable development and stressed the role of local communities in mining development.[6]

These international norms are conveyed through several voluntary or soft law initiatives, including: the Berlin II Guidelines for Mining and Sustainable Development (adopted in 1991); the International Council on Mining and Metals (ICMM) Sustainable Development Framework and Community Development Toolkit, and the ICMM's guiding principles (2001); the Kimberley Process Certification Scheme (2002); the Extractives Industry Transparency Initiative (EITI; 2002); the Alliance for Responsible Mining (2004); the Responsible Jewelry Council's certification system (2006); the Initiative for Responsible Mining Assurance (2006); and the Global Reporting Initiative Mining Sector Supplement (2011).[7] Each of these initiatives contains some type of requirement for member companies and/or states to mitigate the destructive social and environmental impact of mining on local communities and to help ensure that mining-affected communities positively benefit from the extraction of finite natural resources (Jenkins 2004; Kemp 2009 & 2010; Kapelus 2002; Hamann 2003; Labonne 1999). Consequently, in many poor countries in particular, mining companies voluntarily help to provide the essential public goods and services that the state is often unable (or unwilling) to, becoming substitutes for the state (Börzel and Risse 2010). Yet if private regulatory and voluntary intergovernmental initiatives have been successful in improving the behavior of states and mining firms in revenue management and providing community benefits, then why are states turning to hard law to require community development projects in mining-

[6] The 2002 summit resulted in the formation of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development to promote the implementation of the Johannesburg World Summit Plan of Implementation and the priorities identified in that plan for enhancing mining's contribution to sustainable development and poverty reduction. Membership of United Nations member states is voluntary in the forum, but has grown substantially over the years. See www.globaldialogue.info.

[7] Other global voluntary initiatives such as the 1976 OECD Guidelines for Multinational Enterprises, the 1977 International Labor Organization Tripartite Declaration of Principles Concerning Multinational Enterprises, and the 2000 Global Compact pressure firms to uphold and respect human rights principles more generally. ILO Convention 169 requires that indigenous people engage in free, informed, and prior consultation on issues that affect them, to include mining operations. See Ruggie (2007).

affected areas? Why is hard law catching up to soft law, rather than the other way around? Are CSR and voluntary programs insufficient for ensuring that local communities can make positive gains from resource extraction?

Third, many resource-rich countries are also poor countries, such as the Democratic Republic of Congo, Ghana, Sierra Leone, Nigeria, Laos, and Afghanistan. The conventional wisdom is that financial globalization – the cross-border flows of goods, services, and financial resources – should lead to a regulatory race to the bottom via the loosening of domestic regulations in order to attract foreign investment (Greenhill, Mosely, and Prakash 2009; Prakash and Potoski 2006; Vogel and Kagan 2004). However, adopting community development requirements into mining laws represents a move towards higher regulatory standards, because they go beyond the mere mitigation of mining's negative effects on local areas (through, for instance, compensation measures and environmental laws[8]) and place a higher burden on firms and states for public goods provision in their areas of operation. This is especially so where these new requirements mandate firms to enter into formal, legally binding agreements with local communities, also known as Community Development Agreements.[9] Why would poor states pass laws that might deter foreign direct investment?

Deterrence of foreign direct investment is not simply hypothetical; multinational companies have themselves expressed fears that community development in mining laws might deter, rather than attract, foreign direct investment. For instance, Guinea's new Mining Code of 2011 increased the amount of control that the Guinean state exerts over the mining industry as well as the amount

[8] An example of these types of measures can be seen in Liberia's mining legislation, which requires mining companies to submit plans for managing environmental and social impacts in their environmental and social impact assessments. These plans detail how a company will redress the physical impacts of mining once a mine is closed. Furthermore, the legislation requires landowners to be compensated for disturbance of their rights. These types of environmental measures adhere to the "polluter pays" principle by requiring mining companies to clean up after themselves and to compensate those affected by the negative externalities of mining, but they do not necessarily ensure that communities are socio-economically better off as a result of mining activities.

[9] See footnote 2 in chapter 1 for a definition of CDAs.

of benefits that go to ordinary Guineans through increased taxes on mineral exports, increased government ownership shares in mining operations, and through a requirement that mining firms must enter into, and spend a substantial amount of money to fulfill, formal agreements with local communities affected by mining operations, called Conventions of Development (also known as community development agreements).[10] In reaction to the adoption of the new Code, a representative of Rusal, the world's largest aluminum company and an operator of bauxite mines in Guinea, publicly stated that, "any investor of good sense will look for investment opportunities outside of Guinea".[11] Why, then, would one of the world's poorest countries adopt a law that would seem to deter much-needed foreign direct investment?

Investment Security, Distributive Justice, and Regulatory Reform in the Mining Sector

Foreign direct investment (FDI) is essential to mining operations. In some countries, including in middle-income states, mining constitutes up to half of FDI and can serve as an important source of economic growth, foreign exchange earnings, credit rate improvement, and access to international finance (Bridge 2004; Africa Progress Panel 2013; ICMM 2012a). FDI in the mining sector has risen dramatically in places like Africa, increasing the role of the mining sector in many national economies (Campbell 2015). Foreign investors are critical as they provide the educated labor and large amounts of financial capital required to successfully move a mining project from exploration to extraction.

[10] Among other things, these Development Agreements obligate mining firms to protect the environment and health of people in affected local communities, to develop social projects in those communities, and to establish Local Development Funds for local affected communities, to which mining titleholders must contribute 0.5% to 1% of the company's turnover.

[11] See http://www.bloomberg.com/news/2011-09-13/rusal-says-senseless-to-invest-in-guinea-projects-current-accords-safe.html. Accessed on 17 February 2014.

Mining sector investors have a choice about extraction: whether to extract, and where. But while technical feasibility is a necessary determinant of investment, it is not alone sufficient; political and social factors also heavily influence investment patterns in the mining sector (Vivoda 2010). Investors are motivated by profit, and political constraints like regulations limit the ability of firms to maximize their profits since compliance increases operational costs. As a result, the conventional wisdom has been that globalization leads to a regulatory race to the bottom as states compete to attract foreign investment. The mining sector is no different in this respect, and states around the world liberalized their mining laws during the 1980s in order to increase foreign investment flows (Campbell 2009; Bridge 2004; Maconachie and Hilson 2013). This led to a "geographical restructuring of capital flows in the mining sector" by opening up countries to increased inflows of mining capital (Bridge 2004, 408; see also Campbell 2009; Yakovleva 2005). State-owned enterprises were privatized and opened for foreign investment, regulations and taxation decreased, and social and labor policies liberalized (Besada and Martin 2013).

But in the late 1990s and early 2000s, states and international actors realized that the period of liberalized legislation did not stimulate national development and that state regulation of the mining sector was necessary (Campbell 2009 and 2010; Otto 2013). Consequently, calls were made to overhaul legislation and renegotiate existing mining contracts, leading to a "fourth generation" of mining codes. These new codes include voluntary, regional, and transnational initiatives that emphasize transparency and accountability in natural resource management (Campbell 2009; Besada and Martin 2013).[12] An additional component of this fourth generation of mining regulation is the adoption of progressive mining laws that contain specific provisions to address socio-economic development in mining-affected local communities.

[12] The first three generations of mining laws occurred during the 1980s and the 1990s; these laws liberalized and privatized the mining sector. See Besada and Martin 2013, as well as Campbell 2009.

What explains the apparent mismatch between company incentives to make a profit on the one hand, and the move towards higher regulatory standards in the mining industry on the other? I argue that there is, in fact, no mismatch, because community development in mining laws resolve a key problem for investors: guaranteeing the property rights security of their investments. Foreign investors do not necessarily prefer that states adopt lower regulatory standards; rather, they may, under certain conditions, actually be in favor of states adopting higher standards. This is because foreign direct investors wish to invest in states that exhibit certain qualities and behaviors. And in order to attract foreign investors to a particular geographical location, states must find a way to signal the quality and stability of their investment climate and differentiate themselves from their economic competitors (Simmons and Elkins 2004; Perry 2000; Prakash and Potoski 2006).[13]

One such signaling mechanism between states and foreign investors is hard law, which "refers to legally binding obligations that are precise…and that delegate authority for interpreting and implementing the law" (Abbott and Snidal 2000, 421). Hard law consists of rules that are uniform over geographical space, are legally binding and mandatory, and are enforceable (and ideally are enforced) by states (ibid). In contrast, soft law deviates from the set and defined obligations of hard law, as well as from its precision (ibid); as opposed to hard law, adherence to soft law instruments is voluntary (Chinkin 1989). Countries use a variety of legal mechanisms to attract FDI, including constitutional provisions or domestic laws that guarantee investment protection (and guard against expropriation), investment treaties, tax laws, and laws that govern the operation of markets, trade, and private enterprises (Odumosu-Ayanu 2012). Hard law has cross-border communicative properties, in that "legal commitments can speak to private parties abroad as well as

[13] There is a large literature on the determinants of FDI, and the role that rule of law plays in attracting FDI across sectors and types of countries. See, for instance, Anyanwu (2012), who argues that rule of law is associated with higher FDI inflows to Africa.

home" (Abbot and Snidal 2000, 426), demonstrating the credibility of governments' commitment to particular policies in the eyes of foreign investors.

Foreign investors in the mining sector face a number of political risks when investing (Busse and Hefeker 2007). Political risk is "the risk that a sovereign host government will unexpectedly change 'the rules of the game' under which businesses operate" (ibid, 398). These risks include threats of expropriation, violence and instability, corruption and poorly functioning domestic institutions, and the imposition of new regulations and contractual conditions that raise operational costs or prevent exit. Mineral-rich countries that rate highly on these risk factors tend to attract less FDI on average (Vivoda 2010). As a result, "prior to investment, foreign mining companies require as much assurance as possible as to the security of the investment" (ibid, 50).

Political risks for firms do not stem only from the government. Company-community relations are one of the greatest risks facing investors, due to the asset specificity of mining operations and consequent high costs of exit. Given the large capital investments required, companies have a long time horizon in terms of turning a profit from a mining project. But local communities' time horizons are much shorter; they expect to benefit immediately and for those benefits to be large. As Vivoda (2010) points out, "local communities have the power to influence the security of tenure" for mining operations, and "the key to a community accepting or fighting exploration and mining often depends on the extent to which the community and its members will directly or indirectly benefit from mining… balanced against the perceived harm (e.g. environmental costs) it may cause" (56).

When no mechanism exists to structure or cater to community expectations, and the anticipated benefits of a mining project do not materialize but rather only negative consequences do, communities' sense of relative deprivation can trigger opposition to a mining project in the form of

protests, riots, blockages, or other behaviors (Gurr 1970).[14] The risk posed to mining firms by local communities cannot be overstated; one recent report lists the need for a social license to operate and benefit sharing as two of the top ten business risks facing mining and metals companies, with conflict-related delays costing companies millions and even billions of dollars (EY 2014; see also Herbertson et al 2009; Davis and Franks 2014). Scholarly work also confirms that internal conflict, in the form of civil disorder and political violence, deters foreign investment as the power of communities to demand to benefit from mining operations translates into hard material power – i.e., the power to physically disrupt operations if communities are dissatisfied (Busse and Hefeker 2007).

Higher regulatory standards can be viewed as a benefit by foreign investors since community development legal requirements clarify responsibilities towards, and thus reduce the potential for conflict with, mining-affected communities. Community development in mining laws provide international investors with valuable information about the security of the investment environment in a high risk, high reward industry since these laws help mining firms to mitigate the political risks of operations. In particular, these laws represent a mutually beneficial bargain, wherein states provide a credible commitment to protect mining firms' investment and reputation from damage by local communities through a distributive justice mechanism. In return, companies pay a Pigouvian-like tax[15] that creates socio-economic benefits that spread beyond the mining sector.[16] Where laws are implemented, communities are better off, not merely as good off as they are under compensation measures.

The discussion in this section leads to the main hypothesis of this chapter:

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[14] Relative deprivation is the "discrepancy between people's 'value expectations' (the goods and services people feel entitled to) and the 'value capabilities' (the goods and services they believe they are capable of obtaining). The larger the discrepancy between these two, the strong is the feeling of frustration" (Østby, Nordås, and Rød 2009, 307; see also Gurr 1970).

[15] A Pigouvian tax a "sin tax", wherein the producer of a negative externality must pay for the production of that externality.

[16] See Davis and Franks (2014) for a thorough discussion of the magnitude of the various costs that conflicts with communities impose on extractive industries firms.

Hypothesis 1: Mining countries that receive greater inflows of foreign direct investment are more likely to adopt community development requirements in their mining laws.

Domestic politics

I have put forward an argument that states use hard law signal to foreign investors. This argument consists of three stages. In the first time period, states reduced mining regulations in order to signal to companies about a particular quality of the investment environment: that companies could maximize profit due to limited state involvement. Companies paid lower taxes and had few social obligations to legally comply with. In stage two, companies realized that the rollback of hard law created new vulnerabilities regarding their reputation and social license to operate. Companies relied on soft law and other voluntary initiatives to reduce these vulnerabilities. In the third time period, companies realized that these voluntary commitments created new vulnerabilities for the,, due to the large information and power asymmetries in company-community relationships. States with mining sectors reacted by adopting new laws with new and stronger social provisions, creating incentives for investors to invest.

But one may ask: why is the adoption of community development in mining laws not exclusively a story about domestic politics and state-society relations, wherein politicians react to community desires to improve their lot? After all, it is politicians who must decide whether and when to adopt new laws, and new laws could buy the support of citizens needed for politicians to stay in power. Politicians could use hard law to exert stronger authority over resources and reap more revenues from them. Redistribution of mining revenues via public goods delivery is a well-known tactic used in resource-rich states like Saudi Arabia to buy citizen loyalty. Incentives to buy citizens' loyalty and repress dissent can result in resource nationalism, "the regulatory rebalancing of interests, relating to natural resource projects, to the benefit of society and government at the

expense of investors" (Otto 2013). In fact, Besada and Martin (2013) argue that the mining regulatory reform boom of the 2000s was the result of just this.

Politicians' decision to adopt new mining laws could also be the result of pressure from below. As mining companies generate higher profits, citizens can demand that their governments legislate "more equitable revenue-sharing codes and adopt a larger developmental role for the state" (ibid, 20). In order to retain power, politicians have a particular interest in placating restive populations living in mining areas, who demand more state-led public goods provision and revenue sharing. Local communities' dissatisfaction with mining operations can pose a serious threat to the political survival of politicians who represent these areas.

Domestic politics are an important part of my argument. Political risks for mining investors are posed not only by governments but also by the communities affected by mining operations, and states adopt community development requirements as a way to placate restive locals and thereby attract foreign direct investment. Yet domestic politics is not sufficient as a stand-alone explanation for the adoption of community development in mining laws, for three reasons. First, mineral prices hit their high between 2004 and 2007, but community development laws began to appear much earlier than that and their adoption has continued despite the drop in prices. If politicians adopt these laws as an instrument for political gain, adopting them during bust cycles (low mineral prices) would seem a rather empty promise to local communities. Second, if governments are concerned about local populations blockading mining operations, they have other means at their disposal to quell resistance. They can either forcibly repress those areas, or redistribute existing mining or other revenue from the central to the local level in order to buy local support under existing laws.

Third, mining-affected communities are powerful forces for social change. Past neo-liberal regulatory reforms implemented in developing countries that hollowed out the state have heightened community expectations that mining companies should provide public goods and social services

(Maconachie and Hilson 2013; Hilson 2012). Emboldened and informed about their rights through links with domestic and international civil society organizations, local communities can block, sabotage, or completely halt operations if mining firms do not acquire a social license (community approval) to operate, as has occurred in Papua New Guinea, Argentina, and Peru (World Bank 2012; Herz, la Vina, and Sohn 2007; Jacobs 2013). Yet most mining-affected communities do not, in fact, have much power to effect national-level regulatory change, as Otto (2013) writes: "Examples of a local populous exerting enough pressure to…create a new regulatory system at the local or provincial level are rare" (10). This is because mining areas are often remote and the communities living there poor, and because the transnational ties that could result in boomerang-style pressure on governments are usually formed between international organizations and elites in capital-level civil society organizations rather than with mining-affected local communities (Perla 2012). Rather, local community action against mining operations is more likely to result in targeted firm-level CSR programs, not in legal reform.

In summary, domestic politics play a key role in the logic of law adoption, but only conditionally; that is, the influence of domestic politics is conditioned on states' desire to attract foreign direct investment. Thus, we must look to international-level factors in explaining the rise of national-level mining laws that target local, mining-affected communities, because it is at the international level that important changes have occurred that influence the passage of these laws: namely, the rise of new global norms and ideas that resonate at the local level about sustainable development, human rights, prior consent, and consultation and participation. States seeking foreign investment into their mining sector must harmonize their regulatory frameworks with these international norms in order to attract investors.

Alternative explanations

Although domestic politics may not by themselves influence the adoption of community development in mining laws, it is possible that other international influences could. There are two potential alternative international-level explanations to my argument about the influence of foreign direct investment that could instead explain why governments of resource-rich states adopt community development in mining laws. Global norms can spread from the international to the domestic level through coercive, material, and normative mechanisms (Hafner-Burton 2005; Greenhill 2010; Keck and Sikkink 1998).[17] States could succumb to the normative pressures exerted by international non-governmental organizations, or they could succumb to the material pressures exerted by foreign aid donors. I outline each explanation in turn.

International non-governmental organizations

Mining-affected communities are unlikely to directly effect regulatory change either because they lack the resources and clout to do so or because the government is unresponsive to citizen demands. But an alternate path exists for communities to try to effect regulatory change in their favor: they can reach out to the many international human rights advocacy groups that have, in cooperation with local civil society organizations, exposed bad behavior by extractive industry companies and governments of resource-rich states (Hafner-Burton 2008). These groups can then either directly appeal to the government of the resource-producing state to change its behavior for normative reasons, or they can pursue a "boomerang effect" by appealing to citizens of rich countries to pressure their governments to influence the regime in question to change its behavior (Keck and Sikkink 1998).

[17] Coercive methods increase the costs of non-compliance (defecting) through punishments, while material methods increase the benefits of compliance through rewards. Normative methods change the beliefs of actors about legitimate, appropriate social behavior and thus actors' preferences for those behaviors.

The transnational advocacy networks that create boomerang effects can exert their influence on states via INGO-initiated voluntary initiatives, including those listed in previous sections. Soft law initiatives can trigger the domestic and international adoption of hard laws either because the initiative itself requires it, or because the norms contained in these initiatives achieve a mass of critical authority behind them, increasing the belief that the norm is legally binding (Zillman, Lucas, and Pring 2002). As Zillman, Lucas, and Pring (2002) write, "'[s]oft law'…has been described as an 'indicator of where the international community envisions the law developing'…Companies should seriously monitor 'soft law' developments, industry experts advise, because the soft law of today is quite likely the hard law of tomorrow" (72).

This first alternative explanation can be formulated as follows:

Hypothesis 2: Mining countries that have a greater number of international non-governmental organizations operating within their borders are more likely to adopt community development requirements in their mining laws.

Foreign aid

Foreign aid donors can provide strong material incentives for states to engage in progressive regulatory form. During the 1980s and 1990s, under the guise of the "Washington Consensus", poor countries were pressured by international financial institutions such as the World Bank and other Western development donors to liberalize markets in exchange for much-needed foreign aid. International financial institutions heavily promoted an FDI-led model of resource-based economic growth (Jacobs 2013). This led to a loosening of regulatory standards across sectors, including in mining (Besada and Martin 2013).

However, the World Bank in particular modified its view of extractives industries' management in client countries in 2003 with the launching of the Extractives Industry Review (EIR) of the Bank's support for extractive industries in poverty alleviation (Campbell 2009; Jacobs 2013).

The recommendations that emerged from the EIR included ensuring that local communities receive an equitable share of resource rents, that local communities and indigenous peoples are consulted prior to the start of mining projects, and that the Bank should assist governments to develop and harmonize modern policy and regulatory frameworks for the extractive sectors (ibid). Part of the Bank's support to client countries' extractive industries is delivered via technical assistance, the use of consultants and advisors from donor countries who serve in recipient countries (Godfrey 2002 et al).[18] These technical assistants help advise the host government, and they can spread international norms by drafting new laws on behalf of the recipient country.

This second alternative explanation can be formulated as follows:

Hypothesis 3: Mining countries that receive greater amounts of foreign aid are more likely to adopt community development requirements in their mining laws.

Data

To answer my research question, I collected data for the years 1993[19] to 2012 on the adoption of community development in mining laws. The dataset contains information on the year of adoption of a community development requirement for each country. It also contains detailed information about the contents (design) of each law, to include the exact requirements of each law, the roles that government and companies and community representatives are assigned, the model of community development (see chapter 3), how the law defines beneficiary communities, the rationale for the law, and information on funding and tax requirements. The dataset is a cross-national panel dataset, organized by country and year; it also includes a number of other country-level variables to test alternative explanations and for use as control variables in the statistical models I discuss in the next

[18] Since 2009, the World Bank's technical assistance has been institutionalized under the Extractive Industries Technical Advisory Facility.
[19] I selected 1993 as the starting point of the dataset as most of the community development in mining laws were adopted after this year.

section. This dataset represents a new and novel contribution to the existing empirical evidence regarding the number, geographic spread, and nature of community development in mining requirements, and remains the only dataset that contains systematic, global information on this issue.

To create the dataset, I first constructed a list of all countries with active mining sectors – 124 countries in total. Data on mining sectors comes from the World Bank's World Development Indicators dataset (measured as mineral rents as a percentage of GDP), the International Council on Mining and Metals, and the Extractives Industry Transparency Initiative. I then gathered the relevant legislation for each of the 124 countries from the following sources: government websites (most often, mining ministries), country legal guides provided by international law firms such as Norton Rose Fulbright and legal groups such as Global Legal Group's International Comparative Legal Guides; legislative and legal analysis databases such as FAOLEX and Lexology; reports about current and pending mining legislation written by consultancy firms, mining industry websites, media and civil society organizations, and international organizations such as the World Bank and the United Nations; and academic articles and books. Additional sources of information and analysis about mining laws were reviewed to supplement direct analysis of the relevant legislation, and detailed notes were kept about all data sources used for each country in the dataset. Multiple sources of information were checked for each country, and wherever possible, electronic copies of reports and information sources have been kept on file, as have copies of the relevant pieces of legislation for each country.

I read through the relevant laws of each of the 124 countries to determine if a community development requirement existed. Community development requirements were considered to exist and were coded as a "1" when the law specifically mentioned provision of socio-economic benefits to mining-affected communities or affected jurisdictional areas (regions, provinces, municipalities, etc.). These requirements are in addition to compensation measures and land use payments. In some

rare cases, community development requirements are found in other types of legislation than that regulating the mining sector, such as regulations governing land use, the private sector, fiscal management, decentralization, and broad economic empowerment.[20] The task therefore entailed reading hundreds of pieces of legislation.

Measurement of the main independent variables

The key independent variables are foreign direct investment (FDI), foreign aid, and INGO influences. FDI is measured as net inflows per year of foreign direct investment as a percentage of GDP, and foreign aid as net development assistance and official aid received per year. I try two alternative specifications for foreign aid influence: aid as a percentage of GDP, and a binary variable for whether a country receives World Bank financial assistance. The FDI and foreign aid variables come from the World Bank's World Development Indicators, and are logged to reduce the influence of outliers. They are also lagged by one year. Data on *numbers of INGOs* with member offices in a given country comes from the Union of International Association's Yearbook of International Organizations; this data covers the years 1993 to 2007.

Control variables

I control for a number of other international- and domestic-level variables that might affect the timing and spread of the adoption of community development in mining laws. These include trade, intergovernmental (IGO) memberships, regional adoption of laws, GDP, regime type, mining sector size, elections, ethnicity, and armed conflict. These variables are also lagged by one year.

[20] For instance, Zimbabwe's 2010 Indigenization and Economic Empowerment Regulations contain community development requirements for the mining sector, while these requirements are contained in Kyrgyzstan's 2012 Subsoil Law.

International control variables

Foreign direct investment and foreign aid are not the only sources of international financial flows between states that carry pressure for regulatory reform. Trade can lead to a regulatory race to the top rather than to the bottom through the diffusion of good norms and practices. Importing countries can exert progressive regulatory reform pressure on exporting countries in order to avoid media scrutiny, action by activist groups, and/or a consumer backlash (Greenhill, Mosely, and Prakash 2009). Alternatively, exporting countries may be subject to the so-called "California effect" and raise their legal standards to reflect the higher regulatory standards of the foreign markets to which they export their goods (Vogel 1995). In the mining industry, point-of-origin supply chain initiatives such as the Kimberley Process Certification Scheme[21] and the addition of the "Congo Conflict Minerals Initiative" into the U.S. 2012 Dodd-Frank Act have had a strong effect in shaping the behavior of states and companies alike. I therefore control for trading relationships between countries by including a measure of *trade as a percentage of GDP*; this measure is taken from the World Bank's World Development Indicators dataset, and is logged to reduce the influence of outliers.

Intergovernmental organizations (IGOs) can promote norm diffusion through socialization and harmonization pressures. First, IGOs provide venues for socialization into appropriate behaviors and can change the interests of states to engage in certain behaviors via regular interactions with other countries (Greenhill 2010). Second, IGOs set common standards that spread values and norms across national boundaries, and they can curtail regulatory races to the bottom either via agreements among governments or as the result of private initiatives, raising the payoffs to policy coordination (Vogel and Kagan 2004; Simmons and Elkins 2004; Keohane 1998). In the

[21] Started in 2002 as the result of Global Witness' successful "blood diamond" campaign, the KCPS is a voluntary international diamond certification program designed to ensure that countries do not trade in diamonds mined in conflict areas (Haufler 2009). Initially aimed at the firms mining and trading in conflict diamonds (in particular, DeBeers), many member countries have since enshrined it in their national mining laws. The Congo Conflict Minerals Initiative has a similar function: to ensure that minerals key to the electronics industry (such as coltan) and which have played a role in the Congo's armed conflicts do not enter into the supply chain.

mining sector, regional IGOs have put pressure on individual states to adopt similar community development requirements in mining laws. This includes the African Union's African Mining Vision and the Economic Community of West African States (ECOWAS) Directive on the Harmonization of Guiding Principles and Policies in the Mining Sector. Both of these initiatives aim for harmonization of mining laws across member states and to establish community development standards for states' mining sectors. Peer pressure in the mining industry is not a new phenomenon, as seen in, for example, the "mine expropriations by governments in the 1960s and 1970s, and the reduction of mineral sector taxes that occurred as countries competed for investment in the 1980s and 1990s" (Otto 2013, 5).

I therefore control for both the *number of IGO memberships* a country has to test the socialization effects of IGOs, and additionally control for the *number of states in a region* that have adopted community development in mining laws to test for the peer pressure effect. I also test for the effect of *EITI membership* on adoption as an alternative measure of IGO influence. The EITI is a particularly powerful global initiative governing the mining sector, requiring states to improve accountability and transparency in managing their mineral, oil, and gas resources and revenues. Member states must uniformly adhere to the EITI's rules and standards, and meet regularly in meetings and conferences to share information as well as to discuss and further develop the standard. Data on the number of IGO memberships per state comes from the Correlates of War Project, while I used my data to calculate the proportion of states with mining sectors in a region per year that have adopted community development requirements into their mining laws. Extractives Industries Transparency Initiative (EITI) membership is measured using a binary variable, with membership information taken from the EITI website.

Domestic control variables

I further control for a host of domestic economic and political factors, particularly those that shape the relationship between politicians and citizens. Domestic pressures stem from politicians' desire to increase revenues to the state, and their desire to buy citizen support in order to stay in power.

First, a commodity boom could motivate countries to change their laws to reap more revenue and developmental benefits from high resource prices. When commodity prices are high, states are more likely to engage in resource nationalism (Otto 2013). Poor countries might be more likely to adopt community development in mining laws as a way to overcome budgetary limitations in providing vital public goods. I therefore control for *economic development* levels using data on per capita GDP from the World Bank's World Development Indicators. I further control for the *size of the mining sector*, measured mineral rents as a percentage of GDP; this data comes from the World Bank's World Development Indicators. As an alternative specification, I also control for the *price of key minerals*[22], in U.S. dollars; this data comes from Bazzi and Blattman (2014) and covers the years 1993 to 2009.

Perhaps resource-rich governments are not so proactive in regulating the mining sector, and instead they react to pressures from below. As mining companies generate higher profits, citizens can demand that their governments legislate "more equitable revenue-sharing codes and adopt a larger developmental role for the state" (ibid, 20). Politicians can accede to citizens' political demands and secure their support through greater localized redistribution of mining revenues and benefits. Redistribution can satisfy the grievances of local communities that threaten operations and revenue generation. These incentives should be especially strong in democratic countries, and thus I

[22] This is an aggregate measure of the export price per year on international markets of diamonds, gold, iron, aluminum, copper, uranium, zinc, tin, nickel, and silver. See the online appendix for Bazzi and Blattman (2014) for more on the data sources for commodity prices at http://chrisblattman.com/documents/research/2014.EconomicShocksConflict.AEJ-M_Appendix.pdf

control for the effect of *democracy* using the twenty-point Polity 2 democracy index score from the Polity IV dataset.

I further include a binary measure of whether or not a *national election* for the legislative, parliamentary, the executive, or the constituent assembly took place in a given year, as politicians might promise to adopt community development into the mining laws of their country in order to drum up electoral support. Data on elections comes from the National Elections Across Democracy and Autocracy dataset (Hyde and Marinov 2012). As politicians may see a need to appease certain groups of citizens more than others, such as disadvantaged ethnic groups living in mining areas, I also include a variable for *ethnic fractionalization*. This variable is calculated as the probability that two randomly selected individuals from a population belong to different ethnic groups (Alesina et al. 2003).

Finally, I control for the effect of *armed conflict*. If countries adopt community development in mining laws to signal the quality of a country's investment climate and thus attract foreign direct investment, they may do so to overcome reputational concerns that arise as the result of conflict. Many resource-rich countries have experienced armed conflict, which could thwart foreign investment. I include a binary measure for the presence of armed conflict, based on data from the Uppsala/PRIO dataset on armed conflict (version 4-2012).

Model and results

I test my main argument and the alternative explanations using a survival analysis (event history) approach to model the timing of the passage of community development provisions into mining laws across countries. I use a survival analysis approach because explaining *when* these laws are adopted by states is as important as *if* they are adopted (Box-Steffensmeier and Jones, 1997). I employ a Cox proportional hazards model with time varying covariates to analyze the time that elapses until a country adopts a community development in mining law.

The dependent variable in this analysis is a binary indicator of the year in which a country adopted a community development in mining law (the year of "onset"), coded "1" for the year in which a country adopted such a law. Countries that adopt a law are considered "left censored" as they exit the analysis upon adoption of a law. I do not code for whether a country is considering adopting such a law, and countries that have not adopted a law by 2012 are considered right-censored (do not exit the analysis) (Box-Steffensmeier and Jones 1997 & 2004). Robust standard errors are clustered by country to account for intra-country temporal dependence.

I present the results in Table 2. In Model 1, I include the main independent variable of FDI as well as the alternative explanations of INGO and foreign aid pressures. I also include the international control variables of trade, IGO memberships, and number of states in a region that have adopted community development in mining laws. I further control for GDP and regime type. I re-run this model using the alternative foreign aid specifications (results not shown): a dummy for World Bank assistance and aid as a percentage of GDP. Model 2 substitutes EITI as an alternative specification for IGO memberships. Models 3 through 5 include the various domestic control variables. In Model 3, I test for the effect of characteristics of the mining sector on regulatory reform: mineral prices and mining sector size. Model 4 tests for the effects of elections, while Model 5 includes ethnic fractionalization and armed conflict.

Across all six models, FDI is a significant and positive predictor of the adoption of community development in mining laws, and the hazard rate is greater than 1. This finding provides support for hypothesis 1, that countries adopt community development in mining laws as a way to attract foreign direct investment into their mining sectors. FDI inflows raise the risk of adoption by 15% in four of the five models. Figure 4 shows the survival function of FDI, based on the results of Model 1; the survivor function represents the probability of failure past time *t*. Figure 4 shows that higher FDI flows are much more likely to result in the adoption of a law than lower FDI flows, as

shown by the much steeper decline of the survivor function for higher FDI flows. By year 15, the probability of not adopting a community development in mining law decreases from 1 to 0.40 when FDI represents 50% of a country's GDP, whereas the probability of non-adoption goes from 1 to just over 0.8 when FDI is 10% of a country's GDP. In other words, the likelihood of adoption increases with FDI during the time period under investigation.

Apart from FDI, only the democracy measure is a consistent predictor of adoption, raising the probability by around 4%. Neither of the alternative explanations (INGO and foreign aid influence) achieve statistical significance in the models. This is perhaps not surprising. International civil society influence is probably unlikely to result in progressive regulatory reform, for several reasons. First, states everywhere are exposed to global human rights norms and the transnational advocacy groups that convey these norms and pressure states to adhere to them. Yet, even major mining countries such as Zambia, Brazil, and Chile that are also democracies (and should thus be more receptive to civil society organization pressure) have not adopted community development requirements into their mining laws. Moreover, shaming tactics and the boomerang effect are not always successful in changing government behavior, particularly in semi- and non-democratic states (Hamberg 2013; Dupuy, Ron, and Prakash 2015). Finally, mining areas are often remote and the communities living there poor, and the transnational ties that convey global human rights norms are usually formed between international organizations and elites in capital-level civil society organizations rather than with mining-affected local communities (Perla 2012). As a result, INGOs may not mobilize around the issue of mining's effects on local communities.

In terms of foreign aid, donors could play a role in reforming hard law to the advantage of both resource-rich countries and investors. However, for foreign aid to be both a necessary and sufficient influence on politicians' willingness to pursue progressive regulatory reform, donors would need to be able to exert enough material pressure on an aid-receiving government and also focus

that pressure on a single issue and sector: revisions to the mining sector's regulatory framework. Such a focus may also require funding and policy coordination among donors – which happens far less frequently than donor rhetoric would lead on to believe, even amongst so-called "like-minded" donors. Given the plethora of diverging donors and aid priorities in the development aid world, and the many issues on which donors and recipient countries negotiate, the plausibility that foreign aid would alone explain mining law reform seems unlikely. Furthermore, in semi- or non-democracies, even relatively strong donors like the United States may not have much power at all to influence the adoption of legal measures that strengthen respect for social rights (c.f. Dupuy, Ron, and Prakash 2015).

None of the other international or domestic control variables achieve significance in the models. EITI achieves statistical significance in Model 2, but the coefficient is negative, indicating that EITI membership decreases the probability that a country will adopt a community development in mining law. This seems surprising, but perhaps EITI membership serves as a substitution for adopting a mining law. Alternatively, EITI member countries may feel that their existing laws sufficiently benefit mining-affected local communities, making it less likely for members to adopt a community development in mining law. In many cases, EITI membership has come after the adoption of a community development in mining law: only 9 of the 26 countries with community development in mining laws that included in the dataset were EITI members prior to adopting these laws. 11 adoptee countries are not EITI members at all, while the remaining countries became EITI members after the adoption of a community development in mining law.

Thus, it appears that international financial flows in the form of foreign direct investment best explain why countries adopt community development in mining laws. Attracting foreign investment motivates progressive regulatory reform in the mining sectors of countries around the world.

TABLE 2: Cox Proportional Hazards Models for Community Development in Mining Laws Adoption

	Model 1	Model 2	Model 3	Model 4	Model 5
Main independent variable					
FDI	1.152**	1.066***	1.152**	1.152**	1.153**
	(0.142)	(0.064)	(0.142)	(0.142)	(0.143)
	[0.058]	[0.019]	[0.058]	[0.060]	[0.062]
Alternative explanations					
INGO members	0.999	0.999	0.999	0.999	0.999
	(-0.00009)	(-0.00002)	(-0.00009)	(-0.00007)	(-0.00006)
	[0.002]	[0.00008]	[0.0002]	[0.0001]	[0.0002]
EITI member		0.095***			
		(-2.348)			
		[0.013]			
Foreign aid	0.981	1.048	0.981	0.983	0.980
	(-0.018)	(0.047)	(-0.0186)	(-0.016)	(-0.0193)
	[0.031]	[0.046]	[0.032]	[0.032]	[0.034]
International controls					
Trade	0.641	0.863	0.640	0.645	0.640
	(-0.444)	(-0.146)	(-0.466)	(-0.438)	(-0.445)
	[0.130]	[0.088]	[0.128]	[0.121]	[0.117]
IGO members	1.002		1.002	1.002	1.002
	(0.002)		(0.002)	(0.002)	(0.002)
	[0.006]		[0.006]	[0.006]	[0.006]
% Regional adopters	0.112	0.967	0.111	0.115	0.105
	(-2.189)	(-0.07)	(-2.198)	(-2.159)	(-2.251)
	[0.170]	[0.454]	[0.168]	[0.177]	[0.157]
Domestic controls					
GDP	0.886	0.953	0.886	0.881*	0.873
	(-0.120)	(-0.047)	(-0.121)	(-0.126)	(-0.135)
	[0.057]	[0.047]	[0.058]	[0.054]	[0.060]
Democracy	1.041**	1.009	1.042**	1.042**	1.041**
	(0.0411)	(0.009)	(0.041)	(0.041)	(0.040)
	[0.014]	[0.010]	[0.014]	[0.014]	[0.014]
Mineral prices			1.000		
			(0.0003)		
			[0.0008]		
Mining sector size			1.001	1.001	1.001
			(0.001)	(0.001)	(0.001)
			[0.014]	[0.013]	[0.014]
Elections				0.904	0.909
				(-0.099)	(-0.095)
				[0.099]	[0.096]
Ethnic fractionalization					1.003
					(0.003)
					[0.017]
Armed conflict					0.971
					(-0.028)
					[0.089]
N	1025	1153	1025	1025	1019
Log likelihood	-21.00421	-31.74871	-21.00371	-20.60232	-20.54385
AIC	60.00843	81.49743	64.00743	63.20463	67.08769

Hazard ratios are reported. Coefficients are in brackets. Robust standard errors for coefficients are in parentheses. *p < 0.05 **p<0.01 ***p<0.001

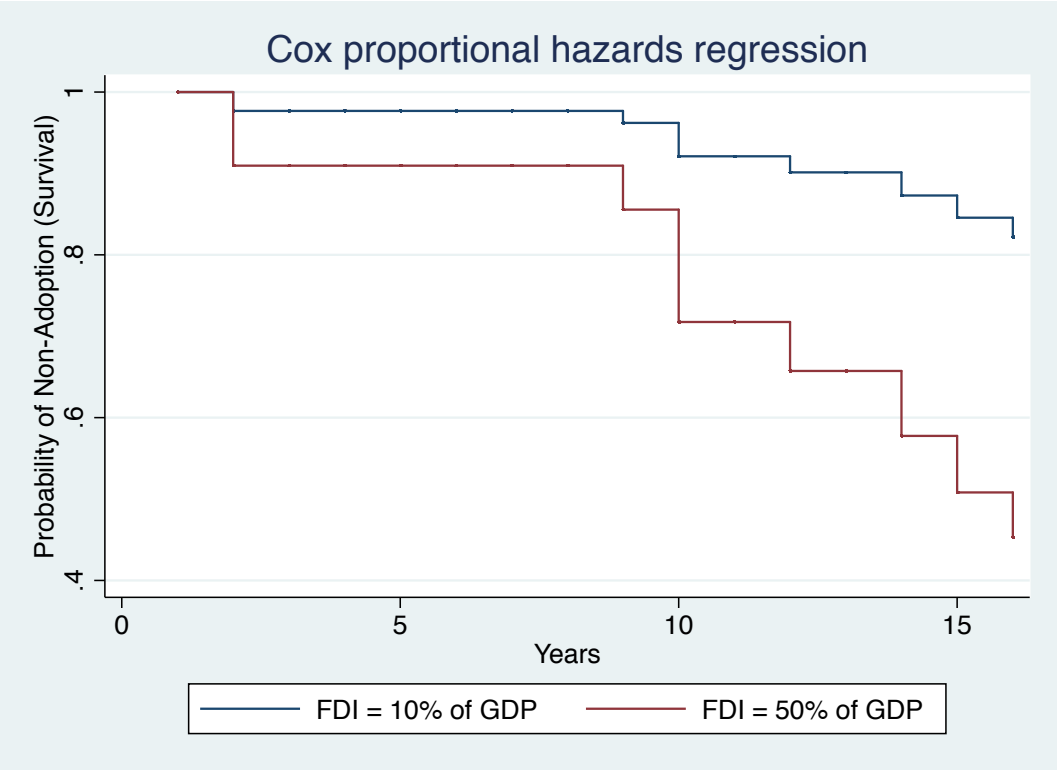

Figure 4: Estimated survivor function for FDI flows (Model 1).

Regulatory Reform in Sierra Leone

In order to shed greater light on exactly how and why the desire of states to attract FDI into their mining sectors makes progressive mining law reform more likely, I outline the process of regulatory reform in Sierra Leone, where community development requirements were recently incorporated into a new mining law. Sierra Leone is a unique case among the countries that have adopted community development in mining laws, in that it has two such laws on the books and it was an early adopter of these laws. Sierra Leone is also an informative case study of the adoption of

community development in mining laws because the process of adoption there has been well-documented by civil society organizations, foreign aid donors, and the media.[23]

This case study is based on data I collected between July and December 2013 on the adoption of Sierra Leone's Mines and Minerals Act (MMA). I conducted a total of 58 interviews both inside and outside of Sierra Leone on the adoption, design, and implementation of the MMA. Interviewees included representatives of the Government of Sierra Leone, large and small-scale mining companies, development partners such as donor agencies, local and international non-governmental organizations, local and international experts and consultants, and members of mining-affected local communities (see Appendix 2 for a full listing of interviewees). Relevant documents were also collected and reviewed.[24]

Community Development Requirements in Sierra Leone's Mining Legislation

In 2001, the Sierra Leonean government adopted the Diamond Area Community Development Fund (DACDF) policy, which returns a percentage of diamond revenues back to diamondiferous local communities.[25] As the policy's name suggests, these revenues are to be used for development projects, with priority given to building community infrastructure. Moreover, the policy aims to increase community participation in, and decision-making about, the use of revenues from diamonds (Maconachie 2009, 2010, & 2012). The policy emerged out of the 1999 Lomé peace negotiations that helped to end the country's 11-year civil war, and was designed to increase state mining revenues by providing incentives to mine legally and thus put a halt to the rampant amount of diamond smuggling that had fuelled the outbreak of the war and kept it going (see Binningsbø and Dupuy 2009; Dupuy and Binningsbø 2010; and Fanthorpe and Gabelle 2013).

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[23] An added advantage of examining the case of Sierra Leone is that I have prior experience researching mining in Sierra Leone, and thus I have been able to collect information over time on the evolution of the country's legal regime governing the mining sector.

[24] Written ethics approval to carry out these interviews was received from the University of Washington Human Subjects Division on 27 June 2013, study number 45365.

[25] The exact formula is 25% of the 3% tax on diamond exports (about 0.75% of total export value).

Despite its positive aims and the increased revenues that have been returned to diamondiferous communities, the DACDF suffers from two limitations. First, it pertains to only one resource while the country is endowed with a number of valuable minerals, such as iron ore, gold, and rutile. Second, the policy has faced a number of challenges in actually generating meaningful participation in the local management of diamond revenues due to the amount of control that local elites exert over the management of DACDF funds (Maconachie 2009, 2010, & 2012; see also chapter 4 of this dissertation).

In 2009, the Sierra Leonean Parliament adopted the Mines and Minerals Act (MMA), a central element in the country's new mining legal framework. The remainder of this chapter focuses on the MMA, as it covers the entire mining sector and represents a major legislative overhaul in the governance of Sierra Leone's mineral resources. The MMA requires mining companies[26] to negotiate and enter into formal Community Development Agreements (CDAs) with host communities, and to spend 1% of 1% of their gross revenue on implementing the CDA.[27] The CDA requirement stipulates the obligations of mining companies to implement projects designed to improve the collective welfare of host communities, the responsibility of host communities to respect mining firms' investments, and the monitoring and enforcement mechanisms for these agreements. In terms of projects that should be implemented in mining-affected communities under CDAs, these are public goods such as educational assistance, employment opportunities, infrastructural development for community services, assistance for small businesses, agricultural product marketing, and support for local governance.

[26] The MMA outlines certain mineral and waste production requirements that mining companies must meet in order to be legally compelled to enter into CDAs.

[27] This requirement has been heavily debated by the key stakeholders involved with the Sierra Leonean mining sector because it is so low. Some of the individuals and organizations I interviewed viewed the requirement as a mistake, and that it should read "1% of gross revenue"; others believe that the requirement was intentional. Some of the mining companies had plans at the time of data collection to go beyond the 1% of 1% requirement and allocate a full 1% of their revenues towards community development, while other mining companies plan to fulfill the law exactly as it is written.

"Sierra Leone is Open For Business" – The Influence of Foreign Direct Investment

Mining sector legal reforms in Sierra Leone began after the end of the civil war in 2002 under the Law Reform Commission (established in 2004), but the reform process achieved real momentum during current President Ernest Koroma's election campaign in 2007 and his subsequent government's focus on attracting foreign investment in the mining sector (Fanthorpe and Gabelle 2013; NACE 2011). After assuming office in 2007, President Koroma established a task force to review the terms of all existing mining agreements and licenses as well as the state of the country's mining legislation (Boakye et al 2012; Fanthorpe and Gabelle 2013; NACE 2011). Among other things, this task force recommended the adoption of new mining legislation that more closely adhered to international and regional standards (such as the ECOWAS Harmonization Directive and African Mining Vision) and that would provide more secure investment terms for mining companies (ibid; Government of Sierra Leone 2008). Technical assistance and pressure from key development partners, including the World Bank, GIZ, UNDP, and DFID, helped to fund the international consultants who drafted the MMA and key pieces of legislation (Fanthorpe and Gabelle 2013).

As multiple interviewees and documents confirmed, the promise of foreign investment triggered the ultimate passage of the MMA in November 2009, right before a major investment conference for Sierra Leone took place in London, the Sierra Leone Trade and Investment Forum. In an interview, a civil society representative emphasized the importance of this conference for the MMA's adoption, stating that the MMA was adopted because "there was the pending conference in London, and government wanted a strong signal to send to investors that Sierra Leone is open for business and a good place to invest".[28] Almost immediately after Parliament approved the MMA, the government signed a mining agreement with London Mining to exploit a huge iron ore concession in the Lunsar area (NACE 2011). This was followed in August 2010 by the adoption of a mining

[28] Interview with civil society representative, 12 September 2013, Freetown.

agreement with African Minerals, another large multinational iron ore mining company, and by the signing of agreements with a number of other mining companies.

Why was the Sierra Leonean government so concerned about attracting FDI into the country's mining sector, given its enormous mineral riches? The country's history of violence due to the civil war and connection to mismanagement of the country's natural resources, as well as recent fatal protests in mining areas, was a major concern for investors. As one foreign donor agency representative put it, at the time of the MMA's adoption, "there was a desire to have a clean investment environment in order to encourage investors, given the country's history of violence and corruption in the mining sector and general poor governance over its natural resources".[29] A civil society representative concurred with this view, arguing that "the government was interested in reforming the mining laws because it wanted to attract investment into the country and it knew that the management of the mining sector was poor".[30] Including a community development requirement in the MMA sent an important signal to mining firms, who "want a friendly investment environment, and want to reduce risk to their huge investments", as one government representative put it.[31] And as one mining company representative stated, echoing comments made by each of the companies I interviewed in Sierra Leone, "the community development requirement in the Mines and Minerals Act reflects the international standards that many mining companies are upholding, and it catches to what companies are already doing for communities in our CSR programs".[32] A donor agency representative argued that the government had adopted the MMA in order "to comply with the international standards of good governance, democracy, and upholding human rights that are already being actively practiced in many mining companies".[33]

[29] Interview with donor agency representative, 10 September 2013, Freetown.
[30] Telephone interview with civil society representative, 31 July 2013.
[31] Interview with representative of Government of Sierra Leone, 9 September 2013, Freetown.
[32] Interview with mining company representative, 8 October 2013, Freetown.
[33] Interview with donor agency representative, 10 September 2013, Freetown.

Prior to the Act's formulation and adoption, mining companies – the very foreign investors that the government hoped to attract with the new law – had expressed concerns about the risks that Sierra Leone's weak and outdated mining regulatory framework posed for their investments, including the ability to control costs, do business, and access foreign exchange (Boakye et al 2012). Mining companies did not push back against the inclusion of extensive community development requirements into the MMA, and in the aftermath of the Act's passage, they have publicly and privately welcomed the new legislation as an important signal about the quality of the investment climate in Sierra Leone. Many of the mining companies actively operating in the country view the CDA requirement as a critical mechanism to help protect mining companies' investments via the structured distribution of benefits to host communities. It is, as multiple interviewees stressed, a mechanism to help mining firms better manage risk, ensure the quality of their community development projects, and improve their relationships with local communities, thereby helping companies to better secure a social license to operate.

Companies view the CDA requirement as helping them to reduce the risks associated with community dissatisfaction in two ways. First, it creates a more level playing field between companies and communities in determining the nature of community development benefits to be delivered since the creation of a CDA requires consultation and dialogue (thereby increasing community members' satisfaction with the process of determining who should get what). Second, it creates a structured, transparent mechanism for the process of distributing of those benefits, increasing community members' satisfaction with the outcome. These two factors are, as one mining company representative discussed, more likely "to help keep community people happy and to give them a sense that they are getting a return from the minerals extracted from their land. The CDA works better than the earlier approach to CSR because it ensures money is spent properly".[34]

[34] Interview with mining company representative, 8 October 2013, Freetown.

Interviewees in different affected communities argued that the (often) non-transparent, philanthropic, top-down, ad-hoc nature of CSR activities agitates community members, who feel they are treated unfairly when they do not benefit, or do not benefit enough, from CSR activities. In other words, CSR is not viewed by affected communities as a satisfactory distributive justice mechanism that sufficiently addresses the imbalance between the costs and benefits of mining. As a group of youths in one affected community discussed, "We have asked for support from the mining company, but the company declined our request. Only if the company calls us is there any meeting; they don't believe in a bottom-up approach. If we disagree with the company, all we can do is to demonstrate against them."[35] Although the CDA requirement raises the bar for mining companies' community development activities, interviewees from companies, government, civil society, and affected communities felt that it allows for a better assessment of community needs and priorities through participatory dialogue – making it more likely that needs are met. It further establishes clear boundaries for, and information about, company responsibilities towards communities (preventing ad-hoc, non-transparent requests). As a result, community expectations about what companies should do are more realistic and better managed, leading to increased community satisfaction with, and acceptance of, mining operations – and enhancing investors' property rights security.

The Role of NGOs and Foreign Donors

Although not a significant predictor of cross-national adoption of community development in mining laws in the large-n analysis presented earlier in this chapter, it should be recognized that the group of domestic and international civil society organizations (CSOs) working on extractives in Sierra Leone played a very strong role in the adoption of community development requirements into the country's mining legislation. These groups – mostly falling under the National Advocacy Coalition on Extractives umbrella – have, since the end of the country's civil war in 2001,

[35] Interview with youth group, 25 September 2013, Koidu District.

consistently pressured the Sierra Leonean government for the return of an increased share of benefits to mining-affected communities (Fanthorpe and Gabelle 2013; DanWatch 2012; NACE 2009 and 2011; see also AJME 2009-2013; and NMJD 2009, 2010a, 2010b, and 2012). NACE consists of both international and local CSOs. As one long-serving civil society representative stated, "after the war ended, civil society organization blossomed in the country. This led to more agitation by these organizations to raise awareness of mineral wealth and how it has not translated into benefits. People see a lack of infrastructure and services despite resource wealth, and they are demanding accountability and community empowerment".[36]

Significant inter-organizational mobilization occurred around the findings of a government investigative report into the fatal community protests of 2007 in the country's major diamond mining region in the east, Kono (NACE 2009; NMJD 2010a). The Kono protests highlighted the sometimes contentious relationships that exist between local communities and mining companies and the lack of adequate benefits flowing back to mining-affected communities from both government and mining firms. One civil society representative underscored the importance of the Kono riots to the push by civil society organizations for legislative reform:

> After the Kono riots, civil society said something needed to be done for local communities in mining areas…The DACDF was not adequate, not properly done or monitored, and it was only for diamond mining communities. Plus there were new mining companies coming in, and we wanted to prevent what had happened in Kono from occurring again, but also to help the local communities since they are so affected by mining's impacts but Government had not made any special consideration for them.[37]

Consequently, extractives-focused CSOs operating in Sierra Leone called for the establishment of a new, structured mechanism to distribute benefits back to mining-affected

[36] Interview with civil society representative, 25 September 2013, Koidu Town.
[37] Interview with civil society representative, 9 September 2013, Freetown.

communities, such as a rutile area community development fund (NACE 2009). CSOs became aware of the use of Community Development Agreements in Ghana in particular through their involvement with regional advocacy networks like the African Initiative on Mining, Environment and Society, and as a result they lobbied the government heavily for a community development requirement to be included in the MMA.[38]

Although civil society organizations lobbied hard for the inclusion of community development requirements into Sierra Leone's mining laws, it must be recognized that the actual process of Parliament's consideration and approval of the MMA was not consultative and the influence of local and international NGOs was negligible in the legislative process. There was limited interaction between government, civil society, and citizens about the proposed law's contents in the run-up to its adoption. This is likely because the law was written by international technical consultants (Adam Smith International) and was hastily put up for consideration by Parliament on the eve of the London investment conference.

Civil society did, however, help to prepare the opposition political party (the Sierra Leone People's Party) to debate and ultimately boycott the bill's adoption once the bill was made available to Parliamentarians (NMJD 2009; NREJP 2012). But this debate occurred only once the bill had come up for a vote, and had no effect on its adoption given that the SLPP could not muster sufficient votes to block the bill's passage (NMJD 2009).[39] Thus, while civil society may have played a role in influencing the content of the MMA, it certainly did not influence the timing of its adoption.

Finally, foreign aid donors had limited influence in the content and timing of the MMA. As part of its "wealth creation" or private sector focus, the United Kingdom's Department for International Development (DFID) helped to provide funding for the Adam Smith International

[38] Interview with civil society representative, 9 September 2013, Freetown.
[39] Two separate interviews with civil society representatives, 9 September 2013, Freetown.

consultants to draft the MMA and related legislation. But donor influence has mainly occurred in the aftermath of the MMA's adoption, when aid agencies such as GIZ and international financial institutions like the World Bank started providing financial and technical assistance to the government to implement the community development requirements.

Regional and IGO Pressures

Although not a significant predictor of the cross-national adoption of community development in mining laws in the large-n analysis presented earlier in this chapter, regional pressures were important in the adoption of the community development requirements in Sierra Leone's Mines and Minerals Act. While Sierra Leone may be a most-likely case of the adoption of a community development in mining law given its unique history, it is not alone in the African region in having adopted such laws. Nigeria was the first country in West Africa to adopt a community development agreement requirement in its mining law in 2007, while community development in mining laws were also in place in other African states at the time of the MMA's adoption, including Ghana (1991), South Africa (2002), Mozambique (2002), the Democratic Republic of Congo (2002), Equatorial Guinea (2006), and Niger (2006) (see Appendix 1). Moreover, the first set of voluntary community development agreements were implemented in Ghana in 2008 between Newmont Ghana Gold Limited and local communities in that company's catchment area. The CDA requirement in Sierra Leone's MMA mirrors much of the language and requirements of the Nigerian MMA requirement, while the Newmont agreements motivated Sierra Leonean civil society organizations to lobby for the inclusion of a community development requirement into the MMA. The Newmont agreements have further served as a source of inspiration for the development of a CDA template in Sierra Leone.[40]

[40] Interview with civil society representative, 9 September 2013, Freetown.

Additional pressure for progressive regulatory reform in the mining sector of African countries – including Sierra Leone – has also come from regional intergovernmental organizations. As outlined earlier in this chapter, the 2008 ECOWAS Harmonization Directive and 2009 African Mining Vision stipulate that ECOWAS and AU member states should better connect mineral exploitation to the fulfillment of national socio-economic development goals and should include community development requirements into their harmonized mining laws. The task force appointed by President Koroma in 2007 recommended that new mining legislation be adopted to reflect these regional standards.

Conclusion

Community development in mining laws are spreading across states. Evidence from both large-n and case study analysis shows that the desire to attract foreign direct investment is a strong incentive for countries to harmonize their hard law with the norms espoused in existing soft law and voluntary initiatives. Creating a distributive justice mechanism that reflects international standards enables mining producer states to communicate the security of their investment environment to potential investors. This challenges the conventional wisdom that globalization necessarily leads to regulatory races to the bottom, including in the mining sector. Rather, international economic forces can actually help improve the situation of mining-affected communities. However, given that many community development in mining laws have been adopted in countries that are amongst the poorest in the world, the real test of their effects will be in examining their implementation.

CHAPTER 3: EXPLAINING VARIATION IN THE DESIGN OF COMMUNITY DEVELOPMENT IN MINING LAWS

Chapter summary

What explains variation in the design of community development in mining laws? I focus on examining variation in who is assigned responsibility for carrying out community development in mining-affected local areas (governments or mining companies), as well as in what these two different actors are supposed to do. I take up the question of why states outsource the responsibility for public goods and services provision to mining companies in hard law. I argue that states with low public goods provision are likely to "pass the buck" to firms because firms are seen as an appropriate institutional substitute for the state. I test, and find preliminary support for, my argument using a multi-methods approach that includes a large-n statistical analysis and an illustrative case study of the community development requirements in Sierra Leone's new mining law.

Introduction

Since the mid-1980s, an increasing number of states with mining sectors have adopted new, or updated existing, mining laws to include requirements for community development in mining-affected local communities. These laws mandate firms and/or governments to carry out socio-economic development projects in communities that reside in geographical proximity to mining areas. Between 1986 and 2012, a total of 32 countries around the world included such provisions into their mining legal frameworks in order to attract foreign direct investment into their mining sectors.

Despite these laws' common purpose, the requirements that they impose are not uniform. Rather, there is variation in terms of *who* is assigned responsibility for carrying out community development in mining-affected local areas: states or mining companies. Furthermore, there is variation in *what* these two different actors are supposed to do. Some laws call for the establishment of state-run revenue redistribution mechanisms like trust or sovereign wealth funds (such as the oil funds found in Alaska and Norway), while other laws require mining firms to enter directly into formal agreements with local communities for the delivery of benefits. In this chapter, I focus on

explaining two related aspects of the laws' design: the choice to assign mining firms the responsibility to carry out community development activities in mining-affected local communities, and the level of responsibility assigned to mining companies for community development. I adopt this focus because legally assigning states the responsibility for public goods provision is not particularly surprising, given that this is one of the primary functions of a state. The interesting question is rather the conditions under which states choose to cede this responsibility to private, non-state actors, particularly when this would appear to place a high burden on the very actor that the state wants to attract into its territory – namely, foreign investors.

Understanding variation in the design of community development in mining laws is important for three reasons. First, it sheds light on the conditions under which states choose to outsource public goods provision (a key state function) to private, non-state actors. Second, it may explain broad patterns of CSR in the mining sectors of certain countries. While scholars often explain the CSR behavior of extractive industries firms in particular as the result of stakeholder pressures – such as maintaining a good reputation and the desire to acquire a social license to operate – legal mechanisms also shape CSR behaviors (Fig 2005). Third, this area of inquiry can shed light in future research on the different outcomes in community development that result from the design of these laws. For instance, laws with low-level, vague requirements may result in few tangible benefits for communities, while mining-affected communities might report being more satisfied with the implementation of a high-level law that places the burden of local socio-economic development on firms rather than on states.

I proceed as follows. First, I discuss the four general models of community development contained in mining laws, each of which give firms different types and levels of responsibility for community development. Then I introduce the Firm Responsibility Index, a new measure of the level of responsibility assigned within community development in mining laws to firms for public

goods provision in affected communities. This index serves as the dependent variable in the chapter's empirical analysis. I then review the relevant literature on non-state actor provision of public goods, generating hypotheses about the conditions under which states might choose to outsource the responsibility for public goods provision in local areas to private actors. My overall argument is as follows: resource-rich governments realize that companies need investment security guarantees in the form of specific social obligations in domestic law. Yet poor states in particular are unable to fulfill these obligations, and they are likely to instead "pass the buck" for this to firms. The weaker the state, the more likely it is to adopt a high-level legal requirement for mining companies to carry out community development projects in mining-affected local communities.

I test my argument using a multi-methods approach. First, I use a large-n analysis to explore the relationships and key variables influencing legal design. Second, because the number of states that have adopted community development in mining laws is very small, I analyze the design of the new mining law in Sierra Leone in order to shed light on the rationale of various actors in designing community development legal provisions. I conclude with reflections on the research gaps that emerge from this study.

Models of Community Development

States opt for one of four models of development in their community development in mining legal requirements. These are: 1) formal agreements; 2) non-consensual development programs; 3) funding mechanisms; and 4) community control over benefit sharing. Below, I analyze the firm-specific commitments contained in these models, while in the next chapter of this dissertation (chapter 4), I examine variation in the implementation of laws adopted in Ghana and Sierra Leone that fall under models 1 and 3.

Model 1 requires companies to enter into a formal, legally binding agreement (such as a community development agreement, or CDA) with host communities, and in some cases,

governments as well. CDAs provide a structured format for the negotiation and distribution of benefits to affected communities. In a few countries, companies must make a minimum financial contribution to ensure a CDA's viability; in Sierra Leone, this is 0.1% of gross revenue, while in Guinea it ranges between 0.5% and 1% of financial turnover, depending on the mineral.

Model 2 obligates companies to carry out community development in areas affected by their operations (such as corporate social responsibility programs), but these plans or activities are not required be developed with the consent of, or in agreement with, local communities. However, in some cases, government approval of firm-developed community development plans and activities is required. For example, the laws of Equatorial Guinea and Laos merely state that mining companies must carry out community development activities in their areas of operations. A different variation is found in Ethiopia, where companies are required to help fund government-formulated community development plans for the peoples in the area of mining operations.

Model 3 entails the establishment of specific funding mechanisms for community development purposes that are state-managed, or that call on government to directly distribute mining revenues to affected communities. For example, the 2002 Mining Code of the Democratic Republic of the Congo calls for a portion of mining royalties and surface rights fees to be paid to local government and used for infrastructure construction in affected communities. Peru's 2004 legislation mandates local government to directly distribute a percentage of mining royalties back to mining-affected communities for use on community development initiatives. The Philippines 1995 law requires companies operating on indigenous lands to pay royalties into a trust fund that is then paid out to affected indigenous groups.

Finally, model 4 institutionalizes direct community control over development activities and revenues. For instance, Community Share Ownership Schemes were established in Zimbabwe in 2010 as a way to create community equity in mining operations. Income generated through equity

participation is placed into a Community Share Ownership Trust and is to be used by affected communities for socio-economic development projects like schools, roads, and hospitals.

The Firm Community Development Responsibility Index

Firms are called on to play a role in carrying out community development activities in different ways across all four models discussed above. But there is variation in the content of individual laws in terms of when firms are specifically assigned responsibility for carrying out community development activities in mining-affected local areas, and what responsibilities firms are allocated. Of the 32 countries that adopted these laws between 1986 and 2012, twenty require firms alone to do community development (without assigning government a specific role), nine require states alone to do so, and three require both firms and governments do community development.

To explain this variation in what laws assign firms to do in terms of carrying out community development, I read through all the laws contained in the dataset from chapter 2. I drew out common categories for firm responsibilities across the laws, and developed an index based on these categories. I then coded each law using this index. Table 3 below shows the additive index, which contains three key elements of firm responsibility that vary across these laws: 1) who is assigned responsibility for community development in mining-affected local areas (the state or mining companies); 2) the specificity of firm-level community development requirements; and 3) the nature of the agreement for firm-provided community development activities. Each element adds an additional level of responsibility. By *level of responsibility*, I mean the number and types of requirements that firms are required to meet, and the way in which they must satisfy these requirements. The index total score serves as the dependent variable for the statistical analysis I carry out in the data analysis section; it is an ordinal level variable.

This index is additive because each category places an additional restriction on the firm. The basic requirement is assigning specific responsibility to mining companies for community

development. The second requirement is about specificity, and entails whether the law mandates mining companies to engage in specific activities, which represents an additional burden for companies. The highest level of responsibility requires firms to directly negotiate with local communities and sign a formal agreement. This is considered to be a high burden since local communities will have a much greater degree of involvement in both crafting the agreement (thus affecting the type of benefits firms will provide) and in implementing the agreement (thus impacting the outcomes of, and satisfaction with, the agreement).[41] These formal agreements also constrain the firm to a greater degree in terms of their obligations to implement community development projects.

[41] A Community Development Agreement (CDA) is a private, legally binding, formal agreement entered into between a mining firm and a local community (O'Faircheallaigh 2012; see footnote 2 in chapter 1). Community development agreements as well as plans state what a firm intends to do in terms of community development activities, but plans (as opposed to agreements) may or may not be developed in cooperation with affected local communities, and they are not necessarily legally binding. A Mineral or Mining Development Agreement (MDA) is a legally binding contract between a government and a firm that outlines the mineral rights that a firm has as well as its responsibilities for things like community development and environmental clean-up.

Table 3. Firm Responsibility Index	
Category	**Scoring**
1) Firms are assigned responsibility for carrying out community development activities	0 = Firms not assigned to carry out community development activities (*the state is assigned responsibility*) 1 = Firms are assigned responsibility for carrying out community development activities
2) Specificity of community development project requirements for firms	0 = No specificity for firms' activities 1= Firms are required to work on specific issue areas, spend a specific financial amount, and/or implement projects within a specific timeframe
3) Requirement for firms to develop specific, documented community development plans and/or enter into formal agreements with either governments or local communities	0 = Firm is not required to develop plans or enter into agreements or contracts with explicit community development plans outlined 1 = Firm must develop/present a plan or agreement in order to acquire mining rights
Minimum Total Points Possible = No Responsibility = 0 **Maximum Total Points Possible = High Level of Responsibility = 3**	

Table 4 shows which laws (by country) fall into each category of the index. The distribution is fairly even: ten countries legally require all three categories of responsibility; eight countries require two categories; and six countries require only one category (the base category of assigning firms responsibility). In the nine countries that do not require firms to carry out community development in mining activities, the state is instead legally responsible for redistributing mining wealth back to mining-affected local areas and/or implementing socio-economic development projects.

The countries that have adopted the highest degree of firm responsibility fall into two groups. The first groups are countries that have very recently adopted community development in mining laws (generally, from 2010 to 2012). These countries have largely followed the Nigerian model (see page 66) of calling for contractual, agreement-based community development activities in their new laws. The second group consists of countries whose community development

requirements are connected to land ownership. In Papua New Guinea, Canada, and Fiji, landowners are legally responsible for granting mining companies access to land, and it is on this basis that companies are required to negotiate benefit sharing agreements with them.

Table 4. Distribution of Countries Across Firm Responsibility Index (year of adoption in parentheses*)**

0 (no firm responsibility assigned; state is responsible)	*Low Responsibility: 1 index category required (firms are assigned responsibility for community development)*	*Medium Responsibility: 2 index categories (category number in parentheses)*	*High Responsibility: 3 index categories required*
China (1986) Ghana (1991) Colombia (1994) Nicaragua (2001) Sierra Leone (2001) Mozambique (2002) Peru (2004) Niger (2006) Ecuador (2009)	DR Congo (2002) Laos (2008) Equatorial Guinea (2006) Zimbabwe (2010) Vietnam (2010) Ethiopia (2010)	Philippines (1, 2) (1995) South Africa (1, 3) (2002) Mongolia (1, 3) (2006) Indonesia (1, 3) (2009) Central African Repub. (1, 3) (2009) Yemen (1, 3) (2010) Mali (1, 3) (2012) South Sudan (1, 3) (2012)	Papua New Guinea (1992) Canada (2002) Fiji (2006) Nigeria (2007) Sierra Leone (2009) Afghanistan (2010) Kazakhstan (2010) India (2011) Guinea (2011) Kyrgyzstan (2012)

Institutional Substitutability: Private Provision of Public Goods in Mining-Affected Local Communities

The motivating puzzle for this chapter is why states use hard law to assign private, non-state actors the responsibility for public goods and services provision in mining areas. Public goods are defined as being non-excludable (individuals cannot be excluded from their use) and non-rival (one person's consumption of the good does not reduce consumption for others). Consequently, individuals can

benefit from them regardless of whether or not they contributed to their provision (Taylor 1987). Public goods and services include education, health, roads, law and order, housing, water, electricity, waste disposal, and environmental quality (i.e. clean air).

Weberian-rooted definitions of the state emphasize public goods provision as a key element of statehood: the state is an organization that controls and dominates a territorial space and provides public goods and services to the population that falls within the territory it controls. The state's ability to fulfill these functions rests on its ability to extract resources from the population and to control the means and use of force (Levi 1989; Skocpol 1979; North 1992).

State provision of public goods overcomes collective action problems. Collective action theories tell us that groups of individuals with common interests, such as the provision of goods and services that benefit society as a whole, will not necessarily or automatically attempt to work together further those interests. Rather, individuals have few incentives to provide public goods, given that many people will benefit regardless of whether they contribute, while the individual contributor bears the cost of providing the good. This leads to free-riding and social sub-optimality, since the narrow rationality of self-interest prevents providing beneficial public goods in sufficient amounts (Olson 1962).

Olson (1962) outlined three ways to solve collective action problems: through small groups, coercion, and by providing group members with selective incentives. There is, of course, a fourth solution: one entity can bear the entire cost of, and assume the responsibility for, providing public goods. This is the role of the state. The state provides public goods for citizens in exchange for citizens paying taxes and/or remaining loyal to the regime in power[42] (Levi 1989; Skocpol 1979; North 1992). The state is thus an institutional solution to a market failure: it reduces the transaction

[42] Although, of course, there is variation: all citizens may not necessarily pay taxes in democratic states, and there are non-democratic, resource-rich states like Saudi Arabia that do not tax their population. Yet in these contexts, citizens still access state-provided public goods and services, and they may or may not be loyal to the regime in power.

costs[43] of negotiating and reaching a collective agreement to provide public goods since it creates economies of scale. Furthermore, the state can define and enforce shared interests, punish defection, and reward cooperation over the long-term (North 1992; Keohane 1984).

Yet not all states are equal. The above discussion reflects an ideal type of state – one that is strong, and therefore both willing and able to provide public goods to citizens in its territory. But many states in the world do not fall into this ideal category, and can be instead characterized as "weak states". Weak states lack the administrative or institutional capacity and/or willingness to carry out the functions of a state, in particular to provide the public goods and services required to meet the basic human needs of the population (Rice and Patrick 2008). They are "countries that lack the essential capacity and/or will to fulfill four sets of critical government responsibilities: fostering an environment conducive to sustainable and equitable economic growth; establishing and maintaining legitimate, transparent, and accountable political institutions; securing their populations from violent conflict and controlling their territory; and meeting the basic human needs of their population" (ibid, 3). Such states are often poor, corrupt, authoritarian, and experiencing (or have experienced) armed conflict.

State weakness can be unevenly distributed, as Börzel and Risse (2010) point out: state weakness (or limited statehood, as they term it) can vary along geographical, sectoral, demographic, and temporal dimensions. There may be "parts of a country in which central authorities (governments) lack the ability to implement and enforce rules and decisions and/or in which the legitimate monopoly over the means of violence is lacking, at least temporarily" (Börzel and Risse 2010, 10). Moreover, states may be absent or weak in certain policy areas and with regard to certain populations – such as rural or poor populations living in areas where natural resource extraction and production occurs.

[43] Transaction costs are the costs of measuring and enforcing an agreement.

The weaker a state is, the less likely it is to be able to provide public goods and services. When states are weaker, one solution to the lack of public goods provision is to allocate this responsibility to non-state actors, such as religious organizations, non-governmental organizations, self-organized community groups, or private companies. In a weak state, adopting a law with a high level of firm responsibility for community development represents a form of "passing the buck" for public goods provision to more capable non-state actors. States can use hard law to target mining firms to assume this responsibility because firms do not fully internalize the negative externalities of extraction. Instead, these costs are born primarily by people living in proximity to mining operations. Furthermore, mining firms may not produce a sufficient quantity or quality of public goods and services for affected communities through their corporate social responsibility programs. Firms lack incentives to provide public goods given that their "pursuit of profit hinders them from doing socially desirable things in the first place" (Potoski and Prakash 2009, 1). Thus, weak states are likely to view mining companies as an appropriate substitute provider of public goods and services in mining-affected communities.

This leads to the main hypothesis of this chapter about institutional substitutability:

> *Hypothesis 1: States with lower public goods spending are more likely to adopt mining laws with greater degrees of firm responsibility for community development.*

Alternative Explanations: Foreign Aid and Ethnic Exclusion

While government agents may themselves recognize the limitations of the state in providing public goods and services in mining areas and proactively adopt regulations to cede these responsibilities to

private actors[44], buck-passing could occur for two alternative reasons: pressure from foreign donors or from mining-affected communities.

First, outside actors such as foreign aid agencies often wield a great deal of influence over weak states, for instance via aid conditionalities. Donors might want to bypass a weak state in providing public goods and services in mining areas due to concerns over state capacity or corruption, and could pressure the state to adopt regulations that outsource this responsibility.

This leads to the first alternative hypothesis:

> *Hypothesis 2: States that receive higher amounts of foreign aid are more likely to adopt mining laws with greater degrees of firm responsibility for community development.*

Another factor that could explain the variation in the level of restrictiveness is the level of domestic mobilization around the issue of public goods provision in mining areas. Many mining operations occur in remote areas where communities are often poor and marginalized (see previous chapter; Perla 2012; Kemp 2009). Mining-affected local communities thus often have very high expectations about benefiting from mining, particularly when they feel inadequately compensated for the mineral riches extracted from their lands and are marginalized from political power (Berman et al 2014). Heightened community expectations expose mining firms to a high degree of political risk, as their operations are geographically-fixed and the barrier to exit is high (Williamson 1981; Hill and Jones 1992). This asset-specificity is an advantage for local mining-affected communities, who "are often in a position to impose costs on corporations, with their ability to do so being a function of the resources they command and their ability to organize themselves" (Kapelus 2002, 276). Communities can organize local opposition to the failure of mining operations to create positive benefits for them; this opposition can turn violent, and leading to the halting of operations, even in

[44] The irony is that weak states can become even weaker by outsourcing public goods provision to non-state actors. Thus, a race to the top in the quality of domestic legislation could actually lead to state retreat by creating a race to the bottom in terms of state capacity (Jacobs 2013).

developed countries.[45] Politicians can therefore choose to adopt new legal measures to mollify aggrieved populations, leading to the second alternative hypothesis:

> *Hypothesis 3: States that have higher levels of ethnic exclusion are more likely to adopt mining laws with greater degrees of firm responsibility for community development.*

Research Design

To test these three hypotheses, I employ a mixed-methods approach that combines statistical analysis and a case study. Because the number of states in my sample that have adopted community development in mining laws is very low (n = 32), the statistical analysis is designed to serve as an exploration of the relationships and key variables influencing design, while the case study explores in greater depth the causal mechanism of low public goods provision.

In the statistical analysis, I employ a Heckman selection model in order to account for why countries adopt these laws in the first place. Adoption represents a possible source of endogeneity in explaining variation in the design of the laws, since assignment to the treatment (community development in mining laws) is non-random, possibly creating omitted variable bias (King, Keohane, and Verba 1994). That is, there may be some characteristic about the countries that have adopted community development requirements in their mining laws that makes them more likely to adopt laws at all, and in turn to adopt laws with higher levels of community development requirements. I check the Heckman model results using an ordinal logistic regression model.

The second part of the analysis consists of a short case study of the design of the high-level community development in mining requirements in Sierra Leone. This case study is useful for two

[45] The assumption that local communities are equal partners in an exchange with firms is not applicable in all situations, and thus this argument may only pertain to local communities with sufficient strength to threaten a firm. A report by Greenpeace on the operations of timber companies in the Democratic Republic of the Congo argues that firm negotiations with local communities never occur on an equal basis. Government officials, who most often support the firm, are often present in negotiations, and "villagers feel powerless to defend themselves against the interests of a logging company working hand-in-glove with the state. They fear intimidation and arrest if they react" (Greenpeace, 2007, "Con in the Congo—The Moral Bankruptcy of the World Bank's Industrial Logging Model", p. 49).

reasons. First, it allows me to more fully test my hypotheses and the causal mechanism that can explain design, as the small number of states that have adopted community development in mining laws limits the causal inferences that be derived from the statistical models. Second, it allows me to address a second source of endogeneity: reverse causation. In other words, variation in the design of the laws could be endogenous to their passage and the causal arrow reversed if governments are crafting mining laws with lower (or higher) community development requirements because such a law would be more likely to pass a legislative or popular vote.

I collected data on the adoption and design of the current mining law in Sierra Leone between July and December 2013. I conducted a total of 58 interviews in Sierra Leone and also collected relevant documents. In-country fieldwork involved the use of a trained local research assistant. Interviewees included government, large and small-scale mining companies, development partners such as donor agencies, local and international non-governmental organizations, local and international experts and consultants, journalists, and members of mining-affected local communities (see Appendix 2 for a full listing of interviewees). I also collected and reviewed relevant documents such as news, government, and NGO reports and records. [46]

Data and Descriptive Statistics

The data used for the statistical analysis comes from the panel dataset described in chapter 2. Before I turn to the regression models, a look at the descriptive statistics in Table 5 below tells us a bit about the countries that have adopted community development in mining laws. On average, these countries have larger mining sectors and spend less on public goods and services like health care than do non-adopting countries. Once Canada is dropped from the analysis, health spending – the main indicator of public goods spending in this chapter – is negatively correlated with the Firm

[46] Written ethics approval to carry out these interviews was received from the University of Washington Human Subjects Division on 27 June 2013, study number 45365.

Responsibility Index score in adopting countries.[47] This provides some preliminary support for my hypothesis about states with low public goods provision passing the buck to mining companies via hard law. Moreover, adopter states are on average much poorer, and while the correlation between the index total score and GDP is positive for the full sample of adopter countries, when I drop Canada (the only rich and democratic country among the adopter countries), the correlation value also becomes negative. This lends further support to the institutional substitutability hypothesis, since poorer states are less likely to be able to provide public goods to citizens. Adopter states receive more foreign aid but slightly less FDI, and they have half the number of INGO offices operating on their territory and slightly higher levels of ethnic exclusion than non-adopters. INGO offices and law adoption are positively correlated. Finally, there appears to be no difference in design score regime type between adopters and non-adopters.

[47] Dropping Canada from the sample does not radically change the other correlation values or signs in Table 5.

Table 5. Descriptive Statistics

Variable Name	Correlation with total design score (adopters only)	Adopters (n = 32)		Non-adopters	
		Mean	*Standard Deviation*	*Mean*	*Standard Deviation*
Foreign aid inflows	p = 0.09	8.02e+08	6.87+08	5.07e+08	5.29e+08
Foreign direct investment inflows (% of GDP)	p = 0.26	3.6	5.8	4.45	4.89
GDP (USD $)	p = 0.17 (p = -0.05 when Canada is dropped)	2231	5400	9912	15051
Polity score (rescaled 0 – 20)	p = -0.05	12	5	13	6
Ethnic exclusion	p = -0.31	0.19	0.17	0.14	0.19
INGO office numbers	p = 0.36 (p = 0.16 when Canada is dropped)	595	528	1075	935
Health spending as % of GDP	p = -0.11 (p = -0.35 when Canada is dropped)	2.15	1.28	3.75	2.01
Economic salience of mining sector (mineral rents as a % of GDP)	p = 0.21	1.8	3.2	0.95	2.6

Statistical Analysis

In this section, I test my hypotheses by first using a Heckman selection model. The Heckman selection model takes into account the factors that influence countries to adopt community development in mining laws in the first place. Doing so addresses the selection bias that arises from the non-random selection of countries into the sample of countries that have adopted community development in mining laws (Heckman 1979). In other words, in order to understand why some countries adopt high- versus low-level community development in mining law, we must first account for why countries choose to adopt such a law at all, as the selection effect will bias the design estimates. States adopt high- or low-level community development in mining laws, and these states differ from states that do no adopt these laws at all. The two stages – adoption and design – are interdependent, in that the probability of the level of firm responsibility assigned depends on the probability of the initial decision to adopt a community development in mining law.

The Heckman selection model is structured as two equations: first, a selection equation to explain why countries adopt community development in mining laws, and second, an outcome equation to explain the level of firm responsibility contained in those laws and whose estimates incorporate the probability of adopting such a law. The Heckman model requires that the selection equation contain at least one variable that is not in the outcome equation; this should be a variable that affects selection but not outcome.[48] However, to properly specify such a model, one should not simply have all the same variables in both equations and simply exclude one single variable from the outcome equation, as high multi-collinearity and large standard errors result.

[48] It is important to note that the variables contained in the outcome equation but not in the selection equation are not instrumental variables. A Heckman selection model is not designed to address endogeneity in the sense of reverse causation. Rather, this model explains a given outcome by taking into account the effect of selecting into a group, but does not address the question of whether the outcome might, in fact, instead be an explanatory variable. For instance, if we wish to understand what the effect of women's education is on their wages, we must first account for why women are have entered the labor force at all, since data on female wages will be measured only for women who work and thus be biased. The Heckman selection model is not addressing the nature of the causal relationship between education and wages, but rather is taking into account the choice to work or not in predicting women's wage level.

The first stage of the Heckman model is a logistic regression model that explains the adoption of community development in mining laws, and includes all 124 countries with active mining sectors. The second stage takes into account the estimated probability of adoption as a regressor, thereby accounting for sample-selection bias in explaining the level of firm responsibility contained in the laws. This second stage includes only the adopting countries (32 countries).

First Stage (Selection) Variables

Dependent Variable. The dependent variable in the first stage of the analysis is a binary indicator for whether a country adopted a community development in mining law (the year of "onset"). This variable coded "1" for adoption and "0" for non-adoption.

Independent Variables. The independent variables in the first stage are those used to predict onset in chapter 2: foreign direct investment (FDI), foreign aid flows, INGO member office numbers, IGO membership, regional adoption, trade, mining sector size, regime type, and GDP. These variables are lagged by one year. I discuss the rationale for their inclusion as well as their measurement in chapter 2.

Second Stage (Design) Variables

Dependent Variable

The dependent variable in this stage is the firm responsibility index score, as introduced earlier in this chapter. This ordinal variable ranges in value from 0 (for no firm responsibility for community development), to 3 (for high levels of firm responsibility) (see Table 3).

Independent Variables. The independent variables included in the second stage are those designed to test the three hypotheses for the level of responsibility assigned to firms. I test my main

"institutional substitutability" hypothesis using two variables: *GDP* as a proxy for state weakness, and *health expenditures as a percentage of GDP* as a measure of public goods provision (see, for example, Gisselquist, Leiderer, and Niño-Zarazúa 2016). *Foreign aid* is measured as net development assistance and official aid received per year. These three variables come from the World Bank's World Development Indicators, and are logged to reduce the influence of outliers. They are also lagged by one year. Finally, *ethnic exclusion* measures the size of the excluded population in a country relative to the total population in that country, and comes from Vogt et al's (2015) Ethnic Power Relations Dataset.

Results

Table 6 shows the results for the Heckman selection model. In stage 1 (onset), foreign direct investment is a significant and positive predictor of the adoption of a community development in mining law, meaning that states that receive more FDI are more likely to adopt community development in mining laws. This is in line with the findings of the previous chapter, where I argue that states adopt pro-community mining laws to attract foreign investment.

In the second (design) phase, the coefficients for health spending and ethnic exclusion are negative and statistically significant while the coefficient for GDP is positive and significant. Richer states, and states that spend less on health as a percentage of GDP, are more likely to adopt a high-level community development in mining law with greater degrees of firm responsibility. This could indicate poverty is not necessarily a good indicator of state weakness, since GDP is a national-level measure. The health spending finding is in line with my main argument: countries that spend less on public goods will have an incentive to "pass the buck" on to mining firms for public goods provision in mining-affected local areas. However, contrary to my expectations, more ethnic exclusion does not result in a higher likelihood for states to go for greater degrees of firm responsibility. This may reflect the inability of large numbers of politically excluded populations to

successfully collectively organize and exert enough influence to pressure politicians to pursue progressive regulatory change. In summary, these findings provide preliminary support for my main hypothesis regarding institutional substitutability.

Ordinal Logistic Regression Model

I compare the results of the Heckman selection model with an ordinal logistic regression model with robust standard errors, using the independent variables for the second stage (design) of the Heckman model. The sample consists only of the countries that have adopted community development in mining laws (n = 32). As shown in Table 6, the second stage Heckman selection model results for the health spending measure hold in the ordinal logistic regression model: lower health spending results in a greater likelihood that a state will adopt a high-level firm requirement for community development in its mining law. The results for GDP hold as well: richer states are more likely to "pass the buck" to firms. The ethnic exclusion and foreign aid variables do not achieve significance in this model.

Table 6. Model Results
(Dependent variable: Level of Firm Responsibility for Community Development)

Independent variables	*Heckman selection model*	*Ordinal logistical regression model*
Stage 2: Design		
Hypothesis 1: GDP	0.651***	1.257*
	(0.175)	(0.551)
Hypothesis 1: Health spending	-1.150***	-2.462*
	(0.405)	(1.097)
Hypothesis 2: Foreign aid	0.040	0.701
	(0.297)	(0.491)
Hypothesis 3: Ethnic exclusion	-4.666**	-6.456
	(1.490)	(4.682)
Stage 1: Adoption		
FDI	0.376*	
	(0.169)	
INGO members	0.0002	
	(0.0005)	
Foreign aid	0.022	
	(0.194)	
Trade	-0.723	
	(0.506)	
IGO members	-0.003	
	(0.016)	
% Regional adopters	-1.283	
	(4.197)	
GDP	-0.490*	
	(0.246)	
Democracy	0.105*	
	(0.053)	
Mining sector size	0.079	
	(0.047)	
N (Censored *N*)	1049	14
Prob > chi2 (whole model)	0.0003	0.0017
Wald chi2	21.36	19.35

Robust standard errors are reported in parentheses.
+ p < 0.10 *p < 0.05 **p<0.01 ***p<0.001

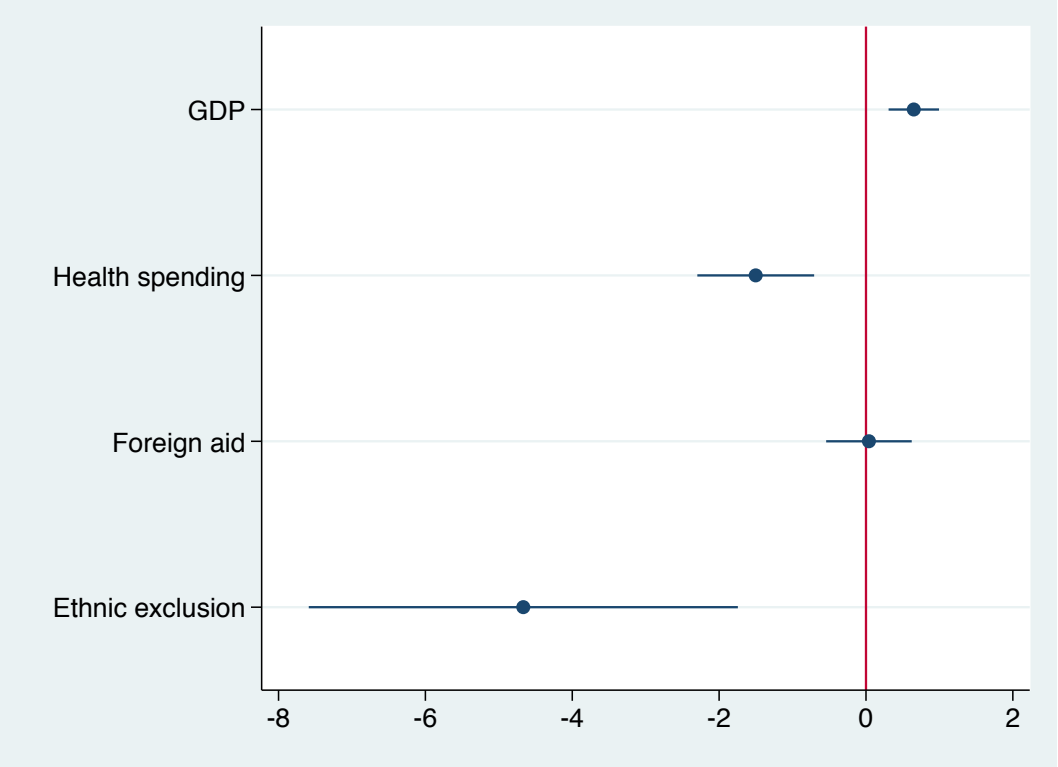

Figure 5: Rope ladder plot for Heckman model stage two results in Table 6

Case Study Evidence: Sierra Leone's New Mining Law

In this section, I discuss how the state's inability to provide public goods and services in mining areas influenced the design of the community development requirements in Sierra Leone's 2009 Mines and Minerals Act (MMA). This law is scored at the highest level of the Firm Responsibility Index for three reasons: 1) it specifically assigns large-scale mining firms[49] responsibility for carrying out community development activities; 2) it requires firms to implement projects in specific issue areas and to spend a specific financial amount in doing so; and 3) it requires firms to develop and

[49] The MMA outlines certain mineral and waste production requirements that mining companies must meet in order to be legally obligated to enter into CDAs. Only large-scale mining companies meet these requirements.

present to the government a formal agreement (CDA) for community development activities, and this agreement should be negotiated with affected communities.

Specifically, the MMA requires mining companies to negotiate and enter into formal Community Development Agreements (CDAs) with primary host communities[50], and to spend 1% of 1% of their gross revenue[51] on implementing the CDA. The CDA requirement in the MMA stipulates the obligations of mining companies to implement projects designed to improve the collective welfare of host communities, the responsibility of host communities to respect mining firms' investments, and the monitoring and enforcement mechanisms for these agreements. In terms of projects that should be implemented in mining-affected communities under CDAs, these are public goods such as educational assistance, employment opportunities, infrastructure development for community services, assistance for small businesses, agricultural product marketing, and support for local governance.[52] As I argue in the previous chapter, the MMA was adopted after several years

[50] The term "primary host community" is not well-defined in the law. The MMA states that "the primary host community is the single community of persons mutually agreed" upon by the license holder and the local government council, and that is residing within thirty kilometers of a large-scale mining area. However, this definition poses several problems, including the existence of more than one community within a thirty kilometers radius, exactly how the physical and social boundaries of a "community" should be identified, and how to address a mining-related population increase (i.e. in-migrants) in a host community. At the time of fieldwork and writing, a more specific definition of the primary host community was being crafted by a small committee of stakeholders from government, civil society, foreign aid donors, and mining companies who have been tasked with formulating a model template for the implementation of the CDA requirement.

[51] This expenditure requirement has been heavily debated by the key stakeholders involved with the Sierra Leonean mining sector because it is so low. Some of the individuals and organizations I interviewed viewed the requirement as a mistake or an intentional last-minute edit, and that it should instead read "1% of gross revenue". However, it is unlikely that this revenue requirement was a mistake or last-minute edit for several reasons. First, the local civil society organization NACE reported in 2009 that a draft version of the Act from 2007 included a requirement for companies "to continue to pay only 0.1 per cent of their minerals sales to a new Chiefdom Development Fund…Thus there is no increase over the current 0.1 percent allocated to the existing Agricultural Development Fund" (NACE 2009, 21). Second, another of Sierra Leone's major extractives-focused civil society organizations, the Network Movement for Justice and Development, reviewed a draft of the MMA prior to its adoption by Parliament and argued for an increase in the minimum expenditure requirement for community development from 0.1% of gross revenue to a full 1% (NMJD 2009). Regardless of the law's expenditure requirement, at the time of data collection, some of the mining companies operating in Sierra Leone stated plans to go beyond it and would allocate a full 1% of their revenues towards community development, while other mining companies planned to fulfill the law exactly as it is written.

[52] The MMA's CDA requirement does not represent the only way in which mining revenues and benefits are returned to mining communities. Mining companies are required to pay royalties and other taxes, fees, and duties to the government, and they must pay for environmental rehabilitation in mining areas. They must further pay surface rent and compensation for disturbing land rights (including compensation for crops, and resettlement costs) to land owners, traditional elites, and local governments. Firms also contribute to an Agricultural Development Fund, and Octea Mining

of government efforts to reform the mining sector's legal framework as a way to attract foreign direct investment. This reform process started in 2004 under the Law Reform Commission and continued with the installation of a special task force in 2007 under current President Koroma's new administration.

Sierra Leone: Low Public Goods Provision

Sierra Leone is one of the poorest states in the world and is weak in terms of its capacity to control its territory, provide public goods to its citizens, and to enforce its rules. In 2014, Sierra Leone ranked at the bottom of the Fragile States Index, falling into the category of "very high warning" in terms of its vulnerability to conflict and failure.[53] While this index shows that governance in Sierra Leone improved between 2006 and 2007, these gains have been relatively small, particularly in the categories of economic development and state legitimacy. Importantly, public services have actually worsened over time.[54]

Sierra Leone has long been plagued by low levels of public goods provision, the legacy of which directly contributed to causing the outbreak of the country's eleven-year civil war in 1991.[55] During the decade after the civil war ended (in 2001), Sierra Leone spent on average just 3% of GDP on education, and 2.5% of GDP on healthcare. By comparison, the African average for education spending in 2008 was twice that amount at 5% of GDP, while the United States spent, on

established a separate community trust fund in addition to its MMA community development obligations. Finally, most of the large mining companies operating in the country have corporate social responsibility programs that benefit mining-affected local communities.

[53] http://ffp.statesindex.org/rankings-2014

[54] http://ffp.statesindex.org/2014-sierraleone

[55] See Richards (1995 & 1996) and Keen (2005) for an analysis of how the failure to provide public goods and services such as education in rural mining areas fueled the outbreak Sierra Leone's civil war by creating a grievances among rural people and a large pool of unemployed individuals with low opportunity costs to take up arms. Of course, the war also worsened the country's poverty levels and public goods provision. In recent years, economic growth increased and health and education services improved, though the 2013 Ebola epidemic halted these gains and is likely to have a long-term negative impact on the country's development.

average, around 5% of GDP on education and 7% on health care during the same time period.[56] Other rich countries like Sweden spend even higher amounts on health and education. The country's government effectiveness (which includes the quality of public goods provision) came in at the bottom 10th percentile of the World Bank's Worldwide Governance Indicators.[57]

Most of the country's mining areas are located far from the capital, and are characterized by some of the lowest levels of public goods and services provision and highest levels of poverty in the country (NACE 2009). As seen in Table 7 below, data from the Demographic and Health Surveys conducted over the years consistently show that several of Sierra Leone's mining areas score among the lowest in the country in education and health achievements[58], while there are still no paved roads leading to the major diamond mining area of the country, Kono District.

[56] Data on African education spending comes from UNESCO (2011). Data for the U.S. comes from the World Bank's World Development Indicators dataset.
[57] http://info.worldbank.org/governance/wgi/index.aspx#home.
[58] One exception is Bo District, which has the third-highest school attendance rates, but the main city of this district (Bo) has historically been a strong education center in the country.

Table 7. Public Goods Provision Indicators in Sierra Leone
Data comes from the 2008 and 2013 Sierra Leone Demographic and Health Surveys (2008 survey disaggregates data by region only)

Region / District *(* indicates site of major mining activities)*	**Active large mining companies**	**Education: Net primary school attendance ratio** *(% of primary school age population attending primary school)*		**Health: Percentage of live births attended by a skilled provider**	
		2008	**2013**	**2008**	**2013**
Eastern Region		63.0	68.9	50.1	77.0
Kailahun District			73.5		86.3
Kenema District*	Octea Mining (diamonds)		65.7		82.5
Kono District *	Octea Mining (diamonds), Nimini Gold Mining, and many smaller companies		69.7		57.6
Northern Region		56.5	68.8	27.4	41.5
Bombali District			77.5		45.4
Kambia District			56.2		40.6
Koinadugu District			61.6		33.0
Port Loko District *	London Mining (iron ore)		69.8		46.0
Tonkolili District *	African Minerals (iron ore)		71.2		37.8
Southern Region		61.3	71.3	53.2	64.0
Bo District *	Amara Gold, and many smaller companies		78.6		76.0
Bonthe District *	Sierra Rutile (rutile)		61.8		77.2
Moyamba District *	Sierra Rutile (rutile); Vimetco (bauxite)		67.3		36.4
Pujehun District *	King Ho (iron ore)		69.2		64.8
Western Region		78.7	82.3	63.7	74.2
Western Area, rural (near to Freetown, capital)			79.6		63.7
Western Area, urban (Freetown, capital)			82.9		76.6

The Influence of Low Public Goods Provision on the Design of the MMA

Since the end of Sierra Leone's civil war in 2002, various stakeholders – including government, international and domestic civil society groups, and foreign aid donors – have pushed to overhaul the country's mining legislation to include more attention to the direct distribution of benefits to mining-affected local communities. As discussed above, Sierra Leone's mining areas have long been neglected by the state in terms of public goods and services provision, a problem that previous mining policies and laws have not sufficiently addressed.

The first legal initiative in Sierra Leone's mining sector that mandated direct distribution of mining revenues to mining-affected local communities for development purposes was the 2001 Diamond Area Community Development Fund (DACDF). The DACDF is a state-led distribution policy that channels a percentage of diamond revenues, based on numbers of mining licenses, to diamondiferous local communities for use on local development projects. The national government makes direct payments to local traditional elites (chiefs) and local government entities, with community-level participatory governance structures designed to enhance local-level control over the use of mining revenues (see chapters 2 and 4 of this dissertation; see also Binningsbø and Dupuy 2009; Dupuy and Binningsbø 2010; and Fanthorpe and Gabelle 2013; and Maconachie 2009, 2010, & 2012).[59]

Although still currently active, successful implementation of the DACDF policy has faced a number of challenges as a revenue distribution mechanism, which I examine in greater detail in the next chapter. In particular, recognition of the failure of local government agents to effectively redistribute mining revenues and thereby address popular grievances regarding public goods provision in mining areas helped to motivate the shift of responsibility to mining companies for

[59] Previous legislation required mining companies to include in their mining lease applications proposals for land rehabilitation, the mitigation of mining's environmental effects, compensation measures for land rights disturbance (1994 Mines and Minerals Decree/1996 Act), and for mining firms to have a Community Development Action Plan (2000 Environmental Protection Act).

public goods provision in the MMA. As one civil society representative in Kono District pointed out, because of state weakness, the DACDF policy "is used at a local level as political patronage, with the chief and politicians taking big cuts. As a result, very little actually goes back to the local community. People are demanding to know why there is no development despite all this resource wealth".[60]

In fact, firms have long been viewed by communities and government as substitutes for the state when it comes to public goods provision. In the year prior to the MMA's adoption (2008), Government recommendations on legislative improvements in the mining sector had called for a turn to legally requiring mining companies to provide public goods in order to ensure that locals benefited from the minerals extracted from their lands (Government of Sierra Leone 2008; Fanthorpe and Gabelle 2013; AJME 2009). President Koroma himself articulated the social responsibility of companies and the need to formalize these responsibilities, stating that "companies should have return in their investments, but the community people should also be seen to benefit from the minerals and have a direct link to the exploitation of these minerals" (AJME 2009, 6).

Communities, too, have long held high expectations about companies as public goods providers, based on the exchange of their land for consent to operations. As Fanthorpe and Gabelle argue (2013), these expectations stem from the "strong sense of community ownership over land and its resources, [which creates] an equally strong sense of entitlement to benefits from outside agencies using 'community' land for their own profit" (55). This view came through strongly in interviews I conducted with mining community members across Sierra Leone: "The company should provide us with hospitals, schools, community courts, markets, bridges, and other infrastructure because they destroy the land", one community member stated.[61] Another echoed this view: "before they take our land and our livelihoods away, the company must do certain things for

[60] Interview with civil society representative, 25 September 2013, Koidu Town.
[61] Interview with community member, 22 September 2013, Bonthe District.

us. Government cannot help us with the things that we need, like roads and schools and hospitals, so of course we look to the firm instead since it is closer than government".[62]

Three different mining company representatives in Sierra Leone summed up the MMA's CDA requirements as setting in stone what was already de-facto practice in many mining areas, with mining communities viewing firms operating in their backyards as a viable substitute public goods provider. "The community wants schools, scholarships, roads, water, and community resource centers. The government doesn't fulfill these requests, and people don't have access to the government, so for the community the company is the government", one representative stated.[63] The second representative agreed: "Local communities expectations are extremely high. They expect the firms to be a proxy government".[64] In the words of the third representative, "communities expect mining companies to act as the government".[65] While supportive of the MMA's community development requirements, company representatives pointed out that the law shifts the social position of firms from good neighbors to citizens with legal obligations to fulfill, and officially makes them a replacement for government.

Conclusion

This chapter has examined the question of the conditions under which states choose to outsource public goods and services provision in to non-state actors in their mining laws. I argue that states with low public goods provision are more likely to choose to pass the buck to firms in their mining laws, as mining companies are perceived as an acceptable institutional substitute to the state for public goods provision.

[62] Interview with community member, 20 September 2013, Tonkolili District.
[63] Interview with mining company representative, 18 September 2013, Bo District.
[64] Interview with mining company representative, 2 October 2013, Freetown.
[65] Interview with mining company representative, 18 October 2013, Freetown.

Given the limited quantitative and qualitative data available on the adoption and design of community development in mining laws, this chapter should be viewed an exploratory study that provides preliminary evidence for my argument. Future inquiry on this topic should focus on several questions. First, evidence from other countries should be gathered on the logic of adoption and design of community development in mining laws to better understand how states and firms view investment risk in the mining sector, and under what conditions states and communities view firms as good institutional substitutes for public goods provision. Second, we need a better understanding for why strong, developed countries like Canada adopt community development in mining laws that assign firms responsibility for public goods provision in affected areas. Finally, comparison should be made of the outcomes of state- versus firm-led approaches to implementing community development projects and to sharing the benefits of extraction and production, and of the effects of legal versus voluntary requirements for benefit sharing and community development.

CHAPTER 4: CORRUPTION AND ELITE CAPTURE IN COMMUNITY-MANAGED NATURAL RESOURCE FUNDS IN THE MINING SECTOR

Chapter summary

In this chapter, I examine the implementation of a sub-set of community development in mining laws: the direct distribution of mining revenues to affected communities or regions by the national government for use on community development projects. Given the relatively high revenues, these funds should result in tangible development gains in recipient areas. In practice, however, design features of these funds can enable corruption among local elites in fund receipt and use, resulting in a failure to equitably distribute benefits for the collective good in affected areas. This chapter compares how variation in the design of Ghana's Mineral Development Fund (MDF) and Sierra Leone's Diamond Area Community Development Fund (DACDF) has led to variation in levels of corruption and grabbing among the traditional authorities that are responsible for fund receipt and expenditure – and in turn, to variation in development outcomes in beneficiary communities. I conclude with a discussion of the promise that community development agreements (CDAs) hold as an alternative benefit-sharing model for mining-affected local communities.

The Legal Turn in Community Development and Mining Revenues Management

The past two decades have witnessed a growing recognition of the need to ensure that communities living near mining operations benefit from mineral extraction (Eweje 2006; Kemp and Owen 2013; Kemp 2009 & 2010). Private mining companies voluntarily implement corporate social responsibility programs and have set up dozens of foundations and trust funds to address the needs of affected communities and thereby acquire a "social license to operate" (Kapelus 2002; Yakoleva 2005; Jenkins 2004; World Bank 2012; ICMM 2012b; Wall and Pelon 2011). Governments, too, have taken steps to ensure that mining-affected local communities are not only compensated for the negative effects of extraction, but that they also benefit positively from it. This is evidenced by the growing number of laws and policies that have been adopted since the late 1980s requiring governments and/or mining companies to implement socio-economic development projects in local communities (see chapter 2 of this dissertation). These legal instruments reflect the philosophy that "a mine is a development intervention with sustainable development implications" (Que and

Awuah-Offei 2014, 59). They represent a new and progressive tactic by states to go beyond merely mitigating mining's negative effects through compensation and environmental mitigation measures to the production of positive-sum socio-economic benefits that can make affected communities better off as a result of mining activities.

One of the models of community development promoted in these new laws require governments to place revenues from mining operations, such as taxes and royalties, into funds and to distribute revenues directly back to affected communities for socio-economic development purposes (see the discussion of Model 3 in chapter 3 of this dissertation). Six countries have adopted this type of model: Ghana, the Philippines, Sierra Leone, Niger, Laos, and South Sudan (see Table 8 in the next section). The considerable sums that have been distributed through these funds should result in tangible development gains in local mining-affected areas. Yet evidence suggests that they have failed in achieving this objective.

This chapter examines the puzzle of policy failure. Politicians have incentives to support policies that improve citizens' well-being and can improve politicians' chances of staying in power (Bueno de Mesquita et al 1999). With respect to the mining sector, politicians have an incentive to adopt legal measures with a community-focused distributive justice mechanism in order to enhance property rights security for foreign investors. Given this, we should expect to see improved development outcomes for policy beneficiaries. Yet, despite politicians' incentives to ensure that welfare-improving policies succeed, these policies instead sometimes fail.

In this chapter, I examine how variation in the design of community development in mining laws explains variation in the implementation of these laws in terms of realizing their intended outcomes. This focus in motivated by the desire to contribute to the broader area of inquiry of understanding the conditions under which policy interventions can successfully mitigate the so-called resource curse in developing countries.

I argue that while community-targeted mining funds have been established with good intentions, their ability to uplift mining-affected communities through increased incomes as well as social service and infrastructure provision is determined by the way in which the design of these funds intersects with local power dynamics, as refracted through local institutions. When fund management is purposely delegated to unaccountable local-level institutions, the likelihood is high for benefits to be unequally distributed and for local elites to instead "grab" more than they are fairly entitled to through corrupt behaviors (Søreide and Williams 2014). As a result, improvements in collective socio-economic wellbeing fail to materialize, leaving affected communities no better off, on average, than they were prior to mining operations.

I support my argument through a comparative case study of two West African mining revenue distribution policies that channel money to local communities through state-managed, extra-budgetary funds: Ghana's Mineral Development Fund (MDF) and Sierra Leone's Diamond Area Community Development Fund (DACDF). Using data gathered in each country through primary documents and interviews with key informants, I show how local elite capture of the decision-making process for employing these funds, as well as a lack of transparency and accountability in their actual use, has resulted in fund misuse and embezzlement. I discuss proposed and actual attempts to overcome the problem of local elite corruption in these two funds. Policy reform in Sierra Leone's DACDF has reduced the problem of elite capture and enhanced the amount of revenue flowing directly to community members, while Ghana's continued failure to reform the MDF has enabled chiefly elites to continue to use the fund for private purposes. I draw out the lessons learned for the design and implementation of community-managed natural resource funds. I conclude the chapter by comparing these funds to an alternative, more successful institutional model for revenue distribution that has been adopted in the two countries: community development agreements (CDAs), which constitute Model 1 in chapter 3 of this dissertation. The adoption of the

same two community development models in these countries, and the variation in the outcomes of those models for local communities, sheds light on the conditions under which benefit sharing in natural resource sectors can translate into development at the sub-national level.

Financial Benefit Sharing, Corruption, and Elite Capture in Natural Resource Management

A key question facing resource-rich countries is how to turn natural resources into development – or more specifically, how to translate the revenues generated through resource exploitation into economic growth. A number of policy instruments have been implemented to help countries better manage their mineral wealth and avoid elements of the so-called "resource curse", such as Dutch disease (currency appreciation and crowding out effects) (Weinthal and Luong 2006). The most popular mechanisms to date "emphasize macroeconomic policies, economic diversification, natural resource funds, transparency and accountability, and direct distribution" (ibid, 36). Natural resource funds and direct distribution focus on how to mobilize revenues domestically for development, such as financial benefit sharing via resource funds and distribution policies (Akabzaa 2013).

Financial benefit sharing the in natural resource management is not a new phenomenon, and economists and political scientists alike have examined natural resource (sovereign wealth) funds like Alaska's Permanent Fund and Norway's Petroleum Fund, as well as revenue transparency initiatives such as the Extractive Industries Transparency Initiative (Frankel 2010). But direct distribution has received less attention, especially in non-oil sectors like mining, despite the fact that large revenues flow to national governments and sub-national entities from mining operations. Direct distribution is a form of financial benefit sharing, or the sharing of the benefits that exceed the costs of extraction (IFC 2015). This chapter examines *targeted*, direct distribution of mining revenues, which entails channeling mining revenues from governments to citizens of resource extraction areas via

special funds, and the management of those revenues by affected citizens.[66] I label these funds "community-managed natural resource funds" (CBNRFs). [67]

Governments collect mining revenues from several sources: corporate and income taxes, royalty payments, export payments, and land use and license fees. These payments usually accrue to the national or sub-national level, rather than to the local areas where mining occurs and where its negative effects are most pronounced, such as environmental impacts, livelihoods destruction, and population influx (O'Faircheallaigh 2012). While states can and do redistribute mining revenues to citizens through general budgetary allocations on social services provision, fiscal redistribution does not always map on to the uneven, inequitable distribution of the costs of mining operations.

This imbalance of who bears the costs and reaps the benefits of mining is a market failure, one in which mining companies do not fully account for the production of negative externalities related to their operations. It is also a political failure, as resource wealth is not turned into economic development for citizens in the areas where extraction occurs. States can adopt new institutions to rectify this imbalance of costs and benefits, such as targeted, direct revenue distribution laws and policies. Such policies are vital for ensuring that mining revenues translate into development in affected areas:, given that "the ability of the mining industry to contribute meaningfully to poverty reduction, particularly at the community level, depends on the industry's host population's share of and prudent management of local benefits from mining" (Jackson 2005, quoted in Akabzaa 2013, 216).

The targeted, direct distribution of mining revenues to mining-affected local communities can help to offset the social costs of mining, ensuring that these communities are not worse off as a

[66] This is as opposed to state-managed resource funds like the Alaska Permanent Fund, which benefits all Alaskan residents.

[67] Scholars use different terms for resource revenues that are directly distributed to either all or some citizens of a state, including "citizen funds" (Hjort 2006), "direct dividend payments" (Guigale and Nguyen 2014), and "citizen resource dividends" (Standing 2014).

result of mining operations. CBNRFs are both equity-based and need-based distributive mechanisms (Smith and McDonough 2001). When distribution is purposively designed to deliver developmental dividends such as infrastructure and social services, it can also help to make these communities better off than they were before mining operations began, even if the amounts of money in question may seem relatively small.

Two types of state-mandated targeted distributive institutions can be identified in mining sector laws.[68] First, governments can directly pay affected communities, for instance by funneling a percentage of mining revenues into state-managed funds and doling out payments directly to communities from these funds. Second, governments can require mining companies to directly pay affected communities, for instance through firm-managed trust funds and foundations, or by paying directly into state-established but community-managed funds (ibid; Söderholm and Svahn 2014).[69] In both cases, affected communities are involved in, or completely in charge of, spending these funds.

[68] Eighteen countries have specific funding requirements in their community development in mining laws; the majority of these requirements stipulate that funds are to be managed by government rather than by affected communities. For instance, in India, mining leaseholders must contribute to government-managed District Mineral Funds, which are used by government to positively benefit mining-affected areas. Eleven countries require that companies enter into formal agreements with affected communities (and in some cases, national or local government); these agreements determine the provision of benefits to communities and are labeled, depending on context, "Community Development Agreements", or "Impact and Benefit Agreements". Only Sierra Leone and Guinea have explicit requirements for the financial contributions that firms must make to CDAs. In some countries, these agreements, and the funding streams that support their implementation, are managed by multi-stakeholder committees.

[69] Examples of the second type are found in Ghana and Liberia. In Ghana, AngloGold Ashanti's renegotiated Stability Agreement from 2004 included a requirement to set up Community Trust Funds to support community development projects in affected areas. In Liberia, ArcelorMittal's renegotiated Mineral Development Agreement from 2007 included a requirement to establish County Social Development Funds to benefit the local communities affected by the company's operations.

Table 8. Examples of government funded but community-managed natural resource fund laws & policies in the mining sector

Country (year)	Details
Ghana (1991)	10% of mineral royalties are placed into the Mineral Development Fund and then paid back to the communities on whose land mining takes place for use on development projects.
Philippines (1995, 1996)	Mining royalties are paid into a trust fund for indigenous communities in mining areas, with funds to be used for socio-economic development.
Sierra Leone (2002)	A percentage of diamond export tax revenues is placed into the Diamond Area Community Development Fund, with funds allocated back to diamond-producing communities for use on development projects.
Niger (2006)	The state redistributes 15% of mining revenue back to local communities in mining-affected areas.
Laos (2008)	Investors must contribute to Community Development Funds – which are channeled back to mining-affected local communities.
South Sudan (2012)	Government pays 3% of royalties to mining communities.

Community-managed natural resource funds are based on a long tradition of community-based, decentralized, participatory approach to natural resource management in Africa (Maconachie 2009; Agrawal and Gibson 1999). Community-based natural resource management is premised on the idea that local populations have a greater interest in, knowledge about, and ability to manage resources than the state or private companies (ibid). Non-governmental organizations have also promoted this form of management as a way of achieving social justice for traditionally marginalized peoples (Brosius, Tsing, and Zerner 1998). In line with this thinking, the claimed benefits of targeted, direct distribution are many. First, it can improve natural resource governance and government performance by enhancing public awareness in mining areas of revenue streams and uses, thus triggering demands for greater accountability in resource revenue flows (Weinthal and Luong 2006). Second, distribution can improve the efficiency and effectiveness of spending by removing revenues from the hands of corrupt government officials and empowering communities who best know their own developmental needs to decide how revenues should be spent (Gillies

2010; Ross 2007). Finally, distribution can help to resolve grievances over resource management that motivate groups to take up arms against the state or to violently disrupt mining operations (Palley 2003; Rustad and Binningsbø 2012; Le Billon and Nichols 2007; Davis and Franks 2014).

Yet, direct distribution of mineral revenues is not unproblematic, as Weinthal and Luong (2006) point out. For instance, beneficiaries are more likely to use funds for immediate consumption rather than save or invest the funds, and there is a high risk of developing financial dependence on payments. Moreover, distribution reduces available funding for general government spending on public goods and services, and payment amounts may be insufficient to achieve developmental goals and attain real gains in living standards (Palley 2003).

A further challenge to ensuring that targeted distribution translates into developmental dividends is inequality in distribution, particularly when that inequality prevents money from being used to enhance the collective welfare. Unequal distribution can be intentional and even politically and socially acceptable to do, as when distributional policies are adopted to benefit certain areas or groups of people in order rectify past injustices that have led to current inequalities. Intentional unequal distribution can also occur through regulatory capture of policy-making processes, as when special interests exercise undue influence on the policy-making process and influence the design of a revenue distribution law or policy. Unequal distribution can also be the unintended consequence of the design of a distribution policy or law. This occurs when pre-existing institutional arrangements (including informal institutions in the form of social practices and norms) determine how a distribution policy is implemented and undermine the intended fairness of the policy, whether fairness is based on equality or equity (Bueno de Mesquita et al 1999). The result is that money does not reach those who should benefit from targeted distribution policies, particularly those who should or could benefit most, such as poor, vulnerable, and marginalized social groups.

Intentional and unintentional unequal revenue distribution can both occur as a result of

corruption and elite capture in policy implementation. Corruption is the abuse of entrusted power for private gain, and elite capture occurs when "the more privileged members of communities dominate decision-making processes and, at the expense of other groups, improve their access to collective benefits" (Saito-Jense, Nathan, and Treue 2010, 327). Elite capture is akin to grabbing, which occurs "when someone seizes something that he or she is not entitled to, or takes *more* than what is his or hers formally, informally or tacitly allocated share" (Søreide and Williams 2014, 1). Elite capture of resource revenues distorts the welfare-enhancing effects of resource revenues; for example, it has had the effect of creating a "rich country with poor people" in Venezuela, where "the fruit's of the country's [oil] bounty accrued to a minority of the country's elite" (Humphreys, Sachs, and Stiglitz 2007).

Corruption-created unintentional and unequal distribution occurs because of an asymmetry of interests and information between the individuals who control distribution and those who benefit from it (Klitgaard 1988). It is also the result of elites' short time horizons and incentives for rent-seeking, as well as beneficiaries' inability to fully monitor the behavior of those actors who control distribution. When authority over resources is monopolistic, discretionary, and unaccountable, it is it is likely that the individuals involved in revenue distribution, by virtue of their position of authority, will mismanage or appropriate money and engage in rent-seeking behavior to enrich themselves at the expense of less powerful individuals. In the case of targeted resource revenue distribution policies and laws, when distributional institutions such as community-managed natural resource funds do not include design elements that constrain and hold accountable the local authorities (agents) who are granted authority over funds, these agents are likely to divert revenues for their private uses. These design elements include participatory and transparent monitoring, checks and balances in decision-making, and robust sanctions mechanisms.

There is a growing body of evidence about the pervasiveness of corruption in community

development projects, and the importance of institutional design in preventing corrupt behavior (see, for instance, Ensminger, forthcoming; Olken 2007). Despite the good intentions behind participatory, decentralized models of development that grant local communities power over project choice and monitoring, corruption can be very entrenched within those local communities, leading to poor outcomes for community development projects. One of the most prominent problems in community-driven development projects is that of elite capture, which occurs when elites "dominate project management and use projects to serve their own interests rather than those of the poor" (Ensminger forthcoming, 4). However, to date, little scholarly work has examined corruption within community-driven development projects funded by natural resource sector revenue streams (i.e. community-based natural resource funds).

Methodology

The empirical analysis of this chapter is based on a comparative case study of community-based natural resource funds in Sierra Leone and Ghana. Both funds have largely failed to achieve their intended effects due to corruption by the local elites who control these funds. However, Sierra Leone actively addressed the design flaws at the root of this failure and reformed the DACDF to address problems of corruption and elite capture, leading to improved outcomes. Examining these two funds and variation in the success of their implementation is important for three reasons. First, the Sierra Leonean and Ghanaian funds were among the first of their type to be adopted, providing sufficient time to assess their implementation. Second, there is variation between the funds on key variables that could explain the effectiveness of a law or policy, such as year of and reason for adoption, state capacity, and political will. There is also variation in policy reform and thus in implementation: the DACDF but not the MDF has undergone extensive reform, with improved outcomes for the DADCF as a result. Importantly, implementation of both funds depends on a similar sub-national institution (traditional elites), a variable that has been largely overlooked but is

key to explaining variation in the success of sub-national policy interventions designed to mitigate the resource curse. Third, in both countries, an alternative model has emerged to ensure that mining-affected local communities benefit positively from mineral extraction: community development agreements (CDAs). The greater success of CDAs in Ghana, and their potential in Sierra Leone, illustrates how important accountable, transparent, and participatory fund management institutions are for producing local-level developmental benefits in the mining sector.

I gathered data in the form of interviews with key informants and primary document collection in the main mining areas of Sierra Leone in 2008 and 2013, and in Ghana in 2013. I carried out a total of 70 interviews in Sierra Leone and 17 in Ghana. Key informants included local traditional authorities, community members, civil society and international organization representatives, journalists, relevant academics, industry insiders, mining companies, and national and local government officials and other individuals involved in policy-making processes (including consultants involved with drafting fund procedures and rules). A list of all interviewees can be found in Appendix 2.

West African Community-Managed Natural Resource Funds

Overview

Both Ghana and Sierra Leone have policies in place that require the national-level government to channel a certain percentage of mineral revenues back to mining-affected local communities for use on development projects in these communities. Mining revenues are paid into state-managed, extra-budgetary[70] funds and then distributed to local institutions in mining communities. These local institutions – in the form of traditional authorities and local governments – are supposed to decide

[70] Extra-budgetary funds are "public resources and government transactions that are not included in the annual budget or are not subject to the same general level of reporting, regulation, or audit as other public finance items" (International Budget Partnership, no date, 4).

on funding priorities and implement development projects in affected areas. Funded projects are supposed to deliver developmental dividends that make these communities better off than they were prior to mining operations, not merely provide compensation for giving up lands and livelihoods.

In both countries, local traditional authorities (chiefs) play a key role in receiving and spending distributed mining revenues due to their important role as local governance providers in rural areas. Chiefly authorities govern in parallel to the state, acting as custodians of land on behalf of the community, raising taxes, and providing local justice and order via customary law (Boone 2014). While in some areas chiefs are elected by the communities they govern, their power is often unaccountable and more akin to a monarchy than to a democratic government (Acemoglu, Reed, and Robinson 2014).

As I show in this section, in both countries, the conversion of mining revenues into developmental gains within mining-affected local communities has been undermined by corruption and elite capture among the local traditional authorities (chiefs) that are responsible for receiving and spending revenues. Rather than deploying the funds as intended to pay for public goods like hospitals, roads, and schools, chiefly elites have diverted the funds for their private uses and to benefit supporters. This is a function of the design of these policies, which rely on these unaccountable local authorities for implementation, lack robust accountability and transparency mechanisms, and suffer from legal ambiguity. Variation in these design elements have led to different outcomes for beneficiary communities in both countries. In Sierra Leone, two reforms of the DACDF's design via the inclusion of more transparency mechanisms and accountability checks on chiefs have reduced corruption and improved outcomes in mining communities. Ghana has, to date, never reformed the MDF policy, resulting in a dearth of positive outcomes from mining revenue distribution for beneficiary communities.

Ghana

In 1991, succumbing to pressure from local communities, the Ghanaian government established the Mineral Development Fund (MDF) by administrative fiat.[71] The MDF's purpose is to mitigate the negative effects of mining on local communities, fund local economic development activities, and support institutional capacity building within the mining sector (Standing and Hilson 2013; Akabzaa 2009; GHEITI 2013b). 20% of the royalties paid by mining companies to the national government are allocated to the MDF, with one-half (10%) allocated to the government's Minerals Commission for redistribution to mining-related government and academic institutions, and the remaining half (10%) allocated to the Office of the Administrator of Stool Lands (OASL) for redistribution to the local areas where mining operations take place. Of the money allocated to the OASL, the OASL retains 10% for administrative expenses and sends 25% of the funds to traditional authorities (chiefs) for them to maintain their offices and status, 20% to traditional councils[72], and 55% to District Assemblies (local government units) within the area where the traditional authority is located.[73] In 1993, the first year of the MDF's implementation, USD $1,033,751 was allocated from the OASL to mining affected local communities via the MDF, and thirteen times that in 2011 (USD $14,113,868) (Akabzaa 2009; GHEITI 2013a).

Sierra Leone

Sierra Leone's Diamond Area Community Development Fund (DACDF) was established in 2001 as a result of assistance and pressure from the international community to use the country's infamous

[71] Administrative Fiat of 1991 (letter no. AB.85/156/01). The Mineral Development Fund Bill of 2014 was under consideration by Parliament for several years and was finally adopted by Parliament on 13 February 2016. This bill creates a solid legislative framework for the Mineral Development Fund, and was proposed in order to address many of the criticisms raised in this chapter – including misappropriation and improper use of funds. See footnote 77 for more information about the MDF Bill.

[72] Traditional councils consist of paramount and village chiefs as well as community elders. For an example of a traditional council in central Ghana, see http://asantekingdom.org/about/kumasi-traditional-council-2/

[73] This formula originally comes from Section 267.6 of the 1992 Constitution regarding allocation of rents accrued from stool lands. See http://www.ghanaweb.com/GhanaHomePage/republic/constitution.php?id=Gconst21.html

diamond resources as a conflict-resolution mechanism (Dupuy and Binningsbø 2010 & forthcoming). Large-scale diamond smuggling in the 1970s and 1980s had starved the Sierra Leonean government of revenues to pay for public services, fueling local grievances that helped to fuel the outbreak of the country's civil war in 1992 and kept it going (Richards 1996). The DACDF's two-fold aim is to increase state mining revenues by providing incentives to mine legally and to increase community participation in, and decision-making about, the use of revenues from diamonds to address the role that diamonds played in the conflict (Binningsbø and Dupuy 2009; Dupuy and Binningsbø 2010 & forthcoming; Fanthorpe and Gabelle 2013; Maconachie 2009, 2010, & 2012).

The DACDF consists of one-quarter of the 3% tax on diamond exports (approximately 0.75% of total export value), to be used for development projects in diamondiferous local communities, such as building community infrastructure. Traditional authorities (Paramount Chiefs) currently receive 80% of funds, while 20% is channeled through local government units (District Councils). Distributions are made twice yearly and based on the number of diamond licenses issued to each chiefdom. In 2001, nearly $196,000 was distributed to chiefdoms via the DACDF, with the increased legal exports of diamonds pushing this amount to $900,000 by 2005. Sector fluctuations pushed these numbers down to around $530,000 in 2008 and then approximately $400,000 in 2011 (NACE 2009; Maconachie 2008).[74]

Elite Capture and Corruption in Mining Revenue Distribution in Ghana and Sierra Leone

Ghana's Mineral Development Fund

Despite the fact that the MDF has been active for over twenty years and is the only policy instrument designated to address the needs of mining-affected local areas, some of Ghana's mining

[74] See also http://www.resourcegovernance.org/countries/africa/sierra-leone/extractive-industries

areas are still amongst its poorest. People have lost access to land and failed to secure employment connected to the mining sector. Few opportunities exist for people to engage in sustainable alternative livelihoods, or to receive sufficient benefits from mining operations (Yankson 2010; Akabzaa 2009). A World Bank evaluation mission to Ghana's largest mining area and also one of its poorest (Wassa District, Western Ghana) noted that the MDF in particular has had little effect on raising standards of living in mining communities: "The local community in Wassa does not appear to have benefitted from large-scale mining through sustained economic growth and improved public services. Local people feel no perceptible benefit from the resources extracted from 'their' land, despite the sharing of royalties between the central government and the mining communities" (World Bank 2003, 21). Even today, a visit to some of the country's main mining towns such as Tarkwa, Prestea, and Bogoso evidences little or no positive impact from the country's recent mining booms in the way of infrastructure and public services provision.

Three key problems with the distribution of the Mineral Development Fund to local traditional authorities in particular largely explain why the MDF has failed to translate into developmental gains in mining-affected areas: ambiguities in the wording of the directive regarding how funds should be used; the unaccountable power of traditional authorities in the use of the funds; and the lack of requirements and a system for tracking funds granted to these authorities.

Nearly one-half of MDF funds are channeled through traditional authorities, with 25% of MDF funds to be used by the traditional authority (chief) to maintain their offices and status, and 20% distributed to traditional councils, with the intention for these two allocations to be used on local development projects. But beyond this allocation formula, no rules exist for how decisions should be made regarding the allocation of funding for community purposes by the chief or the traditional council, nor are there any accountability mechanisms in place for use of funds (Standing and Hilson 2013). Legal ambiguity regarding the chief's role in managing mineral rents stems from

the fact that there is no clear legal guidance as to what exactly maintenance of the chief's offices and status entails, and to what extent this covers personal versus collective welfare or both, given that the chief is entrusted with the community's well-being (Standing 2014). As one industry analyst I interviewed stated, "the language of the MDF states that money going to the traditional ruler should be used to maintain the office, but there is no clarity as to whether this means that the money is to be used as personal funds for the ruler, or as funds for the community".[75] Consequently, community members perceive chiefs to be the main beneficiary of the MDF (Standing 2014).

The consequence of this ambiguity is that chiefs who receive the funds simply use the money for their private projects and personal ends, with little consideration for the betterment of the community as a whole (Akabzaa 2009 & 2013; Adimayoza 2013). The International Council on Mining and Metals highlighted this problem in a 2007 report, writing that "the wording – 'Stool Land revenues are to be used to maintain the stool in keeping with its status' – has been interpreted as meaning that it is legitimate to pay for regalia and the trappings of royalty – limousines, jewelry, and ceremony" (Roe and Samuels 2007, 77) – items with no developmental impact.[76] This has resulted in community resentment regarding how chiefs use the funds allocated to them and accusations that the chiefs have embezzled the money for their private use (Akabzaa 2009 & 2013; Standing 2014).[77] A civil society representative I interviewed summed the situation up well, saying

[75] Interview with mining industry analyst, 23 October 2013, Accra.
[76] The "stool" is the traditional authority, and "stool lands" are those governed by customary authority.
[77] It should, however, be noted that while there may be dissatisfaction in mining communities regarding chiefs' use of MDF funds, outright community-chief conflict is rare. Conflicts have occurred in Ghana between chiefs and community members regarding land and job allocation related to mining (see Twerefou et al 2015), but there are fewer reports of chief-community conflicts specifically regarding the role of chiefs in managing mineral revenues on behalf of local communities (Standing 2014). There are several local civil society organizations active on the issue of mining, such as the Wassa Association of Communities Affected by Mining (WACAM), but these organizations' presence is felt more in Accra than in local mining communities (based on author's own observations during fieldwork in 2013). Civil society organizations pressured government for several years to adopt the new Mineral Development Fund Bill (see footnote 71), which creates a stronger legislative backing for the MDF and improve accountability in fund management (see http://www.sdsg.org/wp-content/uploads/2011/06/presentation-MCDA-Ben-Aryee.pdf). This bill was first drafted in 2009 but was not adopted until February 2016; civil society and government representatives that I interviewed in Accra in October 2013 stated that this delay was likely because politicians want to maintain the discretionary nature of the fund and its lack of accountability. Government has apparently also developed a set of guidelines for the use of mineral

"the MDF is in reality just a way for money to disappear into private pockets, since there is no guide in how to use the money."[78] And, in fact, some chiefs apparently consider it perfectly legitimate to use the MDF funds for their personal enrichment: Standing and Hilson (2013) quote a powerful chief who publicly stated that "traditional authorities are not obliged to use the share of mining revenue accruing to stool lands for developmental purposes" (7), as this was rather the responsibility of the local government.

The detrimental effects of this ambiguity are compounded by the unaccountable nature of the chief's power and the lack of any requirements or system for tracking funds granted to chiefs and traditional councils. Historically, Ghanaian chiefs and traditional councils have been viewed by the communities they govern with great deference and as being largely immune from accountability. As Adimayoza (2013) notes, "it has been the rule that…a chief cannot be called to account by his subjects during his reign as chief…[with] people fearing that they might embarrass the chief should they ask for him to account for resource revenues received on behalf of his people" (159). With limited or no participation by community members in decision-making regarding fund use and the kinglike nature of traditional authority, chiefs remain largely unchallenged in their use of MDF funds.

Finally, MDF funding flows are not tracked in any official budget lines, and there are no systems in place for procurement, contracting, or expenditure management (Roe and Samuels 2007; Standing 2014). There is a lack of documentation regarding payments made by the Office of the Administrator of Stool Lands to chiefs and traditional councils, and no requirements exist for reporting on or auditing of MDF funds used by these entities (Akabzaa 2009; Adimayoza 2013; Morgandi 2008). Ghana's Extractive Industries Transparency Initiative (EITI) office has emphasized

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revenues at the subnational level, but these also have not yet been released (see https://eiti.org/blog/improving-impact-mining-royalties-local-level-ghana). The only existing guidelines for community development activities in the mining sector are the voluntary CSR guidelines of the Ghanaian Minerals Commission and the Ghana Chamber of Mines.

[78] Interview with civil society representative, 23 October 2013, Accra.

the need for better accounting of MDF expenditures at the local level, and the government's Mineral Commission has developed (but not yet released) guidelines on the use of mineral revenues at the sub-national level (Standing and Hilson 2013).[79]

In summary, the combination of legal ambiguity, unaccountable authority, and a lack of institutional transparency and accountability mechanisms are perfect corruption enablers. Combined, these factors translate into failed local development gains, as one industry expert I interviewed lamented: "Too little of the MDF funds go to communities, especially from the chiefs, and there is too little accountability regarding the funds. Communities will not benefit from mining revenues until there is clarification about the recipients and usage of the money".[80] The Ghanaian government finally took action on 13 February 2016 to improve the management of the MDF by adopting the Minerals Development Fund Bill (see footnotes 71 and 77). The bill's stated rationale is to rectify the fact that "after several years of existence…[the MDF has] not been used for the purpose for which it was established" and to establish new (to-be-determined) structures to "avert [continued] misappropriation".[81]

Sierra Leone's Diamond Area Community Development Fund

Until the adoption of Sierra Leone's Mines and Minerals Act in 2009, which requires large-scale mining companies to enter into and fund Community Development Agreements with local communities, the DACDF was the only policy instrument that redistributed mineral revenues back to mining areas in Sierra Leone. As in the Ghanaian case, corruption and elite capture in the early stages of the fund impacted the ability of the fund to contribute to significant developmental gains

[79] See also https://eiti.org/blog/improving-impact-mining-royalties-local-level-ghana. Local government units (District Assemblies) are not necessarily better revenue managers than chiefs; rather, they "have been viewed as vulnerable to political cronyism and patronage…[and] accused of mismanaging funds earmarked for community development purposes" (Standing 2014, 77). Concerns have been raised in several recent EITI reports about poor financial accounting for mineral wealth by the District Assemblies.
[80] Interview with mining industry analyst, 23 October 2013, Accra.
[81] See http://www.ghana.gov.gh/index.php/media-center/news/2445-parliament-passes-mineral-development-fund-bill.

in the country's diamond-mining chiefdoms. The DACDF has faced three main challenges in implementation that policy makers have tried to overcome through design reforms: the effective use of funds, corruption and elite capture in the use of funds due to a lack of transparency and accountability, and low levels of citizen awareness of and participation in decision making about the fund (Maconachie 2012).

Between 2001 and 2004, DACDF payments were issued solely to the governing Paramount Chiefs of diamond-producing chiefdoms, as local government had not yet been reconstituted after the end of the country's civil war.[82] Payments in the form of checks were initially handed over by central government officials to Paramount Chiefs in public meetings with communities, but communities were given little information about the fund and its purposes (Maconachie 2012).[83] By 2004, alarms were being raised by industry insiders, civil society organizations, and the central government over mismanagement of DACDF funds by the Chiefs. A series of reports in 2002 and 2003 highlighted how a number of chiefdoms were not using the funds in an appropriate manner, with 60% of the funds having disappeared since 2001 (Maconachie 2009, 76; Le Billon and Levin 2009).

Why did so much money go missing between 2001 and 2004? A 2003 civil society report noted the following: "Cheques [from the DACDF] were received, but in most cases however, the signatories to the accounts were the Paramount Chief and his/her cronies (wife, District Officers and Treasury Clerks). The withdrawal of the funds as well as its use was [*sic*] questionable as community people were not represented in the process. The people knew about the fund but nothing about subsequent actions as they were not part of the process" (quoted in Maconachie

[82] Paramount Chiefs are the top executives of Sierra Leone's chiefdoms and constitute the third and bottom level of the country's governance structure. While chiefs are elected into office by ruling, hereditary, "autochthonous" families in each chiefdom, they are appointed for life, have little oversight, and are known to abuse (and in the past to have heavily abused) their power and to engage in corruption – which some scholars identify as a root cause of the country's civil war (Jackson 2007; Richards 2005).

[83] Interview with local civil society representative, 26 September 2008, Freetown.

2010, 197). One example of poor funds management cited by Maconachie (2009) is that of Sandor Chiefdom in Kono District, one of the top recipients of DACDF payments. In 2003, a single chiefdom authority (a regent chief) in Sandor decided to use the funds to rehabilitate a local police barracks, and in 2004, many of the spent DACDF monies could not be accounted for by the chiefdom's authorities.

To address these accountability gaps, a multi-stakeholder DACDF Coalition was established in 2003 to try to alter the behavior of traditional leaders in funds management. One tactic entailed establishing Chiefdom Development Committees (CDCs) as a way to broaden participation in decision-making about the use of DACDF monies. Records show that shortly after these reforms were adopted, more funds were accounted for, and more development projects implemented in affected communities. But the reforms did not fully address the problems of elite capture and corruption, as the CDCs came to be dominated by rural male elites. Moreover, no requirements were put in place for reporting, monitoring and evaluation, minimum project selection and implementation standards, or public sensitization regarding funding amounts and uses. This allowed the CDC members to divert funds to their private pockets and to invest in projects that primarily benefited the traditional elite and supported their hold on power. As a result, it was "extremely common to hear local people complain of the chief's abuse of the system in pocketing this money" (Jackson 2007, 100).

The concerns raised in 2002 and 2003 regarding corruption and elite capture resulted in the central government suspending payments to Paramount Chiefs in 2004. The post-war re-establishment of local government in 2004 provided an opportunity to decentralize distribution of a small portion of DACDF money away from Chiefs. A new funding formula channeled 20% of DACDF funds through district and city councils to spend throughout a district, not only in diamond-producing areas. But the same problems of missing monies, poor quality projects, and the

implementation of projects that only served elite segments of society continued. In a 2006 civil society survey of 19 DACDF-receiving communities, none of the respondents felt that the fund had reduced poverty in mining areas, while nearly half agreed that independent monitoring was needed to increase effectiveness and efficiency of the fund (NMJD 2006). The report drove home the impact of the DACDF's design failures, stating that "due to inadequate implementation mechanisms and broad-based participation by citizens in DACDF project decision-making, infrastructural enhancement is yet to translate into long-term and concrete economic opportunities" (NMJD 2006, 13; see also NACE 2009). The views expressed by two civil society representatives and a diamond dealer I interviewed in Kono support the report's conclusions:

> There is a lack of transparency in use of the DACDF money. The spending has been done on the initiative of elders. For instance, youths are not benefitting – there have been no youth empowerment projects. The flow of information between the authorities and the people has not been good. People do not know where the money has gone, or how it has been used, and they have not been consulted about the fund. When the chief calls a meeting, this is only to tell the community how the fund will be used, not to consult the community.[84]

> There is no benefit from the DACDF because of the bad leadership of the Paramount Chiefs, who only eat the money and do things that benefit themselves.[85]

Consequently, the central government again halted payments at the end of 2006 to completely overhaul the DACDF's procedures. New guidelines released prior to the resumption of payments in 2009 include requirements for a project proposal process in order to select projects, as well as procurement and public tendering requirements and a monitoring and evaluation process. Elected Chiefdom Project Committees have been tasked with formulating project proposals based

[84] Interview with two local civil society representatives, 16 September 2008, Koidu Town.
[85] Interview with diamond dealer, 17 September 2008, Kono District.

on community input and needs assessments, and independent local project review committees made responsible for actual project selection. The signatures of both the Ministers of Mineral Resources and of Local Government are now required on all approved DACDF disbursement requests, and two signatures are also required for Chiefdom Development bank accounts, to which DACDF payments are distributed by the central government. The funding formula was changed, with a base amount of 20% allocated to diamond-producing chiefdoms regardless of license numbers, 60% allocated to chiefdoms based on license numbers, and 20% continuing to flow to local governments in diamond-producing districts (Government of Sierra Leone 2008; Maconachie 2010).

By 2010, many DACDF beneficiary communities had begun implementing large-scale infrastructure projects using the fund, enhancing standards of living. While there continue to be some deficiencies in record keeping and monitoring mechanisms across receiving areas, it is generally agreed that the DACDF's improved procedures have resulted in more money being channeled towards the intended purpose of the DACDF: development projects. Funds have been used to create roads connecting rural communities to headquarter towns, build assembly halls essential to community member socialization and local-level administration of justice, and erect other vital infrastructure like markets, bridges, schools, and health facilities (see also Kanu 2010).

Addressing Alternative Explanations for Policy Failure

Critics may ask whether design features that fail to check the power of local traditional authorities are really to blame for the failure of the MDF and the DACDF to create positive development dividends for beneficiary communities. Perhaps, instead, the Sierra Leonean and Ghanaian governments simply lack the capacity or political will to implement the policies, or the revenue amounts that local communities receive are too low to actually fund the kind of projects that would have a tangible impact on local socio-economic indicators.

First, we know that the two policies have, in fact, been implemented fully, but failure in the early phases of the DACDF and continuously with the MDF has been universal in nearly all mining communities in both countries, rather than just in those communities farthest from government control. In the case of Sierra Leone, the state made significant efforts to redesign the DACDF to improve its performance. State capacity (high in Ghana) and political will (high in Sierra Leone) cannot therefore explain the two policies' success or failure.

Second, while it is the case in Sierra Leone that some chiefdoms receive lower DACDF payments because they have fewer mining licenses, revenue distribution amounts are also not to blame for how DACDF monies have been used. Rather, design features are, as the example of Sandor Chiefdom (one of the highest recipients of DACDF payments) illustrates. Prior to the 2004 reforms, monopoly decision-making and too little accountability in chiefly decision-making regarding DACDF funds in Sandor resulted in the construction of infrastructure that benefitted only the traditional authorities, while much of the DACDF money could not be accounted for (Maconachie 2009). This illustrates a key design flaw at the heart of the two funds that explains why the failure to result in developmental gains in mining-affected local communities: the role of largely unaccountable local authorities in implementing these funds.

The Critical Role of Institutional Design

The Ghanaian and Sierra Leonean cases demonstrate that local solutions are not always best for local communities, and that community-based natural resource management is not a panacea for translating resource revenues into development. Rather, it can work to entrench local elites' hold on power and thus undermine the ability of policies to turn resource revenues into community-wide improvements in life quality. A key lesson learned from these cases is that when the implementation of mining revenue distribution policies depends on unaccountable local-level institutions, revenues

are more likely to be siphoned off for private uses and funneled towards selective interests, rather than used to enhance the collective welfare.

Direct distribution of mining revenues from national or sub-national governments to local communities requires the presence of strong institutions at all levels to prevent corruption and elite capture in the collection, transfer, and use of funds (Weinthal and Luong 2006; Ross 2007). As emphasized in chapter 1 of this dissertation, institutional quality determines the outcomes of resource wealth: "The ability of the extractive sector…to ensure the achievement of poverty alleviation targets…depends on well-designed institutional and policy frameworks that ensure…prudent management and allocation of extractive industry resource benefits and their effective use" (Akabzaa 2013, 103). Designing good institutions that govern revenue distribution requires a solid understanding of the interests of the involved actors, as well as creating mechanisms that restrict the choices available to those actors and shape their incentives to produce good collective outcomes (Kolstad and Søreide 2009; North 1990). Mapping out and understanding the local power dynamics that resource management is embedded in, particularly land, labor, and social relations, is critical to designing good community-managed natural resource fund policies and laws.

As I have argued in other work (see Dupuy 2015), policy makers have several options at their disposal to mitigate corruption risks when designing financial benefit sharing mechanisms in natural resource sectors, including community-managed natural resource funds. These options reflect the four pillars of anti-corruption: transparency (the provision of information), participation (the ability to use information), accountability (the ability to hold decision-makers responsible), and integrity (organizational rules and values).

Transparency can be strengthened in community-based natural resource funds through clear rules for fund allocation and use, public reporting on revenue flows, and open contracting and procurement. Participation entails providing meaningful ways for community members – especially

the vulnerable and marginalized – to contribute to decision-making processes for using funds by using the information provided via transparency mechanisms. Accountability is achieved through independent oversight (monitoring) and auditing of fund management as well as by creating opportunities for beneficiaries to hold decision-makers to account through grievance and complaint mechanisms. It also entails having checks and balances in fund administration, including in project selection and bank withdrawals. Sanctions for rule-breaking are an additional accountability measure, as they demonstrate the costs of corrupt behavior and deter future violations. Finally, integrity measures such as codes of conduct can help to instill normative preferences for anti-corrupt behavior.

An Alternative Model for Community-Managed Benefit Sharing in the Mining Sector: Community Development Agreements

Community development agreements are an alternative model (see model 1 in chapter 3 of this dissertation) for implementing community-based natural resource funds, and are currently found in Ghana and will soon be put in place in Sierra Leone. A CDA is "any negotiated agreement between industry (mining sector) and communities agreeing how these communities will access development initiatives" (Environmental Resources Management 2010, 2). In some cases, government is also a party to a CDA. Eleven countries[86] legally require CDAs in their mining laws (including Sierra Leone), while in other countries such as Ghana mining companies voluntarily enter into them with affected communities.[87] These formal, written, binding agreements are supposed to "impose

[86] As of 2012, the following eleven countries legally required companies to enter into formal agreements with mining-affected communities (and in some cases, with national or local government as well): Afghanistan, Australia, Canada, Côte d'Ivoire, Guinea, Kenya, Mali, Nigeria, Sierra Leone, South Sudan, and Yemen. Legal requirements to consult indigenous peoples prior to the start of mining operations in Papua New Guinea and Greenland leads, in practice, to the signing of formal agreements for socio-economic benefits provision to affected communities. These formal agreements are labeled, depending on context, "Community Development Agreements", or "Impact and Benefit Agreements".
[87] There is one exception to the phenomenon of voluntary CDAs in Ghana. In 2004, AngloGold Ashanti (AGA) renegotiated its (financial) Stability Agreement with government, into which government inserted a requirement that AGA establish trust funds to fund socio-economic development projects in communities affected by AGA operations.

obligations on each participating entity and…affect the distribution of costs and the allocation of benefits from a project" (O'Faircheallaigh 2012, 3). A CDA is designed to clearly outline each party's responsibility for improving the welfare of mining-affected local communities and for reducing conflict surrounding mineral extraction.

Community development agreements (CDAs) have been voluntarily implemented in Ghana's mining sector since 2008, and they are legally required in Sierra Leone's 2009 mining law. All of these agreements require the establishment of a fund to which mining companies contribute a percentage of revenues, with multi-stakeholder committees managing the funds. Although mining companies successfully pressured the government not to include community development requirements in Ghana's 2006 Minerals and Mining Act[88], after the Act's adoption, several of the multinational mining companies operating in Ghana have adopted more participatory, relationship-based corporate social responsibility programs that entail consultative approaches to engagement with affected communities, including the adoption of CDAs.[89] As I argue in the previous chapters of this dissertation, Sierra Leone included a CDA requirement in its 2009 Mines and Minerals Act for three reasons: to send signals to foreign investors regarding the security of the investment environment in the country's mining sector, to "pass the buck" of public goods provision to more capable non-state actors, and because of heavy pressure from civil society organizations and local communities.

These trust funds were finally implemented in 2012. See https://www.modernghana.com/news/418200/1/anglogold-ashanti-launches-anglogold-ashanti-obuas.html

[88] Interview with government representative, Accra, 15 November 2013; see also Akabzaa 2009.

[89] This claim is based on my data collection regarding the pre- and post-2006 CSR activities of the multinational mining companies operating in Ghana. For instance, prior to 2006, Golden Star's CSR programs consisted mostly of infrastructure donations to local communities, and CSR projects (by the company's own admission) were not focused on community needs. After 2006, Golden Star started a Development Foundation to fund community development projects, which are selected by a community consultation committee. Similarly, prior to 2006, Gold Fields Ghana Ltd. carried out community development projects on a mostly ad-hoc basis and with little community input, but restructured its approach in 2006 by establishing primary stakeholder community committees.

Sierra Leone's forthcoming CDA template largely mimics the form and content of the Ghanaian CDAs, making a comparison of these two countries' CDA experiences and potentials interesting, particularly given these countries' problems with corruption and elite capture in community based natural resource funds. Important for this chapter's focus on corruption and elite capture is the fact that the voluntary Ghanaian CDAs, and the CDA legal requirements that will soon be implemented in Sierra Leone, include many of the recommended anti-corruption measures listed in the previous section that are currently missing from both the MDF and the DACDF. In the case of Ghana, these measures have reduced corruption and elite capture in revenues used to fund projects under the CDA, resulting in better outcomes for both communities and companies than the MDF. The development of a CDA template in Sierra Leone promises to do the same there.

Community Development Agreements in Ghana's Mining Sector

Three of the major multi-national mining companies operating in Ghana have voluntarily adopted CDAs: Newmont Mining (in 2008), Golden Star Resources (in 2012), and Asanko Gold (in 2014). This section examines the creation and implementation of Newmont's CDAs, as they are the oldest CDAs in Ghana and have served as a model for the other two companies' agreements. The rationale for, and process of, their adoption is nearly identical for the other two CDAs.

The Newmont CDAs[90] benefit the communities affected by operations at the Ahafo mine in the Brong-Ahafo region of central Ghana, and came about for two reasons. First, the agreements can be seen as a natural extension of the community engagement approach adopted by Newmont from the very beginning of its operations in Ghana. Second, the idea of a formal agreement was largely the brain child of a Ghanaian mining professor who was called on to assist Newmont and its affected communities to constructively manage their relationship once operations were underway.

[90] There are three agreements: a framework agreement, a local employment agreement, and a social responsibility agreement. See http://www.sdsg.org/archives/cda-library/ for copies of these agreements.

Newmont's started its community engagement approach as soon as it acquired its mining rights from the Ghanaian government in 2003, when it began a robust stakeholder involvement program for the environmental licensing consultation process. Newmont developed Public Consultation and Disclosure Plans to comply with its own internal corporate social responsibility policies as well as with International Finance Corporation consultation requirements. After the conclusion of the consultation phase, a multi-stakeholder Resettlement Negotiation Committee was established to plan relocation of affected communities at the Ahafo site, and then Consultative Liaison Committees set up to provide structured consultation with the various affected communities for the life of the mine.

The Ahafo community's desire for Newmont to formalize its commitment to dialogue and sustainable development, in conjunction with Newmont's desire to reduce company-community conflicts[91], led to consultations by the two parties with a professor from the University of Mines and Technology in Tarkwa.[92] The professor's proposal for a mutually beneficial path forward entailed Newmont and affected local communities signing a set of formal, negotiated agreements to structure the company's benefit-sharing activities. This reflected the professor's philosophy that "corporate social responsibility can no longer be philanthropic; rather, it needs to be contractual to properly manage community demands".[93] As contracts, Newmont's CDAs recognize each party's interests, allows them to come together to negotiate their demands, and requires them to agree on, and commit to implementing, a document that specifies the responsibilities of each party, including for monitoring and sanctioning.[94] Three years of negotiations, agreement development, and community capacity building took place before the three Newmont Community Development Agreements were

[91] Conflict with local communities led to a shut down of one Newmont's major mining operations in Peru (see Herz, la Vina, and Sohn 2007; Newmont Ghana Gold Ltd. 2005).
[92] The professor (Daniel Mireuku-Gyimah) was also involved in drawing up the agreements for Golden Star and Asanko Gold; the Golden Star agreements are very similar to the Newmont ones (copies in author's possession).
[93] Interview with Professor Daniel Mireuku-Gyimah, 1 November 2013, University of Mines and Technology, Tarkwa, Ghana.
[94] Ibid.

finally signed in 2008; this process that was reportedly key to securing community consent for Newmont's projects to proceed (Vale Columbia Center 2013; Sarkar et al 2010).[95]

Newmont's CDAs appear to have been crafted in order to realize improved outcomes for companies and communities. But are these CDAs really a superior way to deliver socio-economic benefits to affected communities, reduce company-community conflict, and mitigate the problems of corruption and elite capture endemic to the MDF? I argue that the answer to these questions is yes, because the agreements rely on strong transparency, participation, and accountability mechanisms that reduce opportunities for elite capture and corruption, improve community perceptions that mining produces positive benefits, and helps to ensure that the right kind of collective benefits are supplied to affected communities. In other words, the institutional mechanisms by which the CDAs are implemented are the complete opposite of how the MDF allocations to traditional authorities are managed, resulting in better outcomes for affected communities.

The agreements' overall implementation is overseen by the 54-member multi-stakeholder Ahafo Social Responsibility Forum, which is facilitated by the professor who developed the agreements. This Forum includes the traditional authority from each of the ten affected communities, diluting their influence, while the rest of the members come from local and national government, different social groups within the affected communities, and Newmont. All Forum members are required to maintain transparency and to resolve amicably any company-community conflicts that arise. Community representatives on the Forum (which constitute the majority of the Forum's members) are responsible for disseminating information from the forum and the company

[95] Negotiations also included determining which communities were to be considered "local" communities and included within the Forum; these communities were defined primarily by their geographical proximity to Newmont's areas of operations.

to the affected communities. Finally, a Complaints Resolution Committee is responsible for addressing grievances regarding the implementation of the agreements.

Socio-economic development projects in affected communities are funded by the Newmont Ahafo Development Foundation (NADEF), to which Newmont contributes $1 per ounce of gold sold and 1% of net pre-tax income.[96] Transparency, participation, and accountability measures are built into NADEF's operating rules and procedures. A Board of Trustees manages NADEF independently of the Forum, with members consisting of community and company representatives. The trustees are responsible for managing and controlling the foundation's funds, for monitoring projects, and for reporting annually to the 54-member Forum on activities, projects, and expenditures.[97] A rigorous and clear project selection process determines which projects are funded, with representative, town-level Sustainable Development Committees evaluating project proposals based on need-based criteria and costs of inputs. Financial withdrawals require the signature of two board members' signatures, one a community representative and the other a company representative. A separate, multi-stakeholder committee involving company, community, and government representatives manage tenders, while technical supervision (carried out by local government officials) is required for all projects.

While conflict between Newmont and the communities living near its operations has not completely been eradicated (particularly over the issue of local employment), the Ahafo CDAs are generally viewed as having reduced a great deal of tension around Newmont's mining operations and as having created significant positive socio-economic gains in affected communities through direct mine employment and the provision of infrastructure and social services (Kapstein and Kim

[96] During my fieldwork in Ghana in 2013, members of the Ahafo beneficiary communities argued that this amount of money is too low in comparison to the destruction caused by Newmont's mining operations. This is a common criticism of the Sierra Leonean financial requirement for CDAs there (0.1% of gross revenue).
[97] Annual reports can be found at www.nadef.org.

2011).[98] Some critics argue that the reduction in company-community conflict can be chalked up to Newmont using its benefit sharing programs as a way to control local traditional authorities and dampen community dissent (Revenue Watch Institute 2012).[99] However, my interviews in the beneficiary Ahafo communities paint a different picture: one of community members who are both aware and wary of Newmont's influence, but see the CDA as a mechanism to provide certainty in the form of a credible commitment by the company to deliver social and economic benefits to the affected communities.[100] For community members, the CDA makes clear to all what Newmont's obligations are to its affected communities, and requires that benefit sharing is implemented in an open and fair manner – as opposed to the more arbitrary nature of corporate philanthropy and social responsibility programs and the non-transparent MDF. As the professor who designed Newmont's CDAs put it, "under the CDA, everyone knows exactly how much money each town has and what they can use the money for. Everyone knows what the rules are for what kind of projects can be funded and how the money can be accessed. In comparison, the MDF money is not going where it should be – it is not going to straight to the communities".[101] One community member from an affected Newmont community also commented on the CDA's transparency and tangibility: "the CDA enables people to feel that they benefit directly from resources and the company, as royalty payments are not felt here".[102]

[98] NADEF's 2014 annual report states that a total of 23.5 million Ghanaian cedis (just over USD $6 million dollars) have been spent on community development projects from the foundation since 2008; this is approximately USD $1 million per year. Dozens of infrastructure projects have been implemented and hundreds of educational scholarships funded using this money. As a reminder, USD $14,113,868 was distributed through the Mineral Development Fund in 2014 alone; $6.3 million of this (45%) would have been allocated to the traditional authorities of mining areas.
[99] Interview with local civil society organization, 5 November 2013.
[100] Based on interviews conducted with community members in the affected communities of Kenyasi and Ntotroso, October 2013.
[101] Interview with Professor Daniel Mireuku-Gyimah, 1 November 2013, University of Mines and Technology, Tarkwa, Ghana.
[102] Interview in Ntotroso, 28 October 2013.

Forthcoming Community Development Agreements in Sierra Leone

Sierra Leone's 2009 Mines and Minerals Act requires large-scale mining companies to enter into CDAs with affected communities and to spend 1% of 1% of their gross revenue on implementing these agreements. Projects that companies can carry out include educational assistance, employment opportunities, infrastructural development for community services, assistance for small businesses, agricultural product marketing, and support for local governance. In 2012, the Strategic Policy Unit (SPU) within the Office of the President established a multi-stakeholder working group consisting of domestic and international civil society organizations, government, mining companies, and development partners such as German Development Cooperation (GIZ) and the World Bank to create a soon-to-be-released model template that will serve as a guide during the negotiation of CDAs and also become part of the country's model Mining Lease Agreement.[103] These stakeholders have advocated for a template for two reasons. First, the 2009 Mines and Minerals Act outlines what CDAs should contain, but not how CDAs should be created and implemented in the Sierra Leonean context.[104] Second, concerns have been raised by various actors about whether host communities are ready to receive the potentially large amounts of money flowing from CDAs.[105]

Interviewees involved with the template's creation, as well as other relevant actors like affected communities in Sierra Leone's mining areas, stated that there are three positive features to having a CDA template. First, the template enables host communities to negotiate with mining companies in a structured manner and provides a measurable, uniform standard for the provision of

[103] I met with this committee and its individual representatives on several occasions during my fieldwork in September and October 2013 in order to learn more about the formulation of the template. For more on the template creation process and its dilemmas, see http://blogs.worldbank.org/governance/development-ground-mining-community-development-agreements-sierra-leone and also http://awoko.org/2015/09/21/sierra-leone-news-nma-and-partners-sensitize-mining-communities-on-cda/ .

[104] As I discuss in chapters 2 and 3 of this dissertation, the Sierra Leonean CDA requirement in the 2009 Mines and Minerals Act is largely a copy of the same requirement in Nigeria's 2007 mining law.

[105] As confirmed in multiple interviews with the members of the multi-stakeholder committee creating the template, this group has referred to the Newmont social responsibility agreements in Ghana, South African CDAs, the World Bank's model CDA and associated research, the draft Environmental Protection Regulations for the mining sector, and a draft CDA negotiated by London Mining and the Lunsar host community (see also National Minerals Agency 2014).

community benefits. Second, it establishes a representative body to manage community priorities and resources, which can help to ensure a more equitable distribution of benefits within communities. Third, its reporting requirements are designed to promote transparency in community-firm relations. In other words, the template provides the parties to a CDA (mining companies, host communities, and local governments) with the tools and incentives to both secure their interests and to ensure that the other party, or elements within one party, does not undermine the agreement.

Debate about the CDA template amongst those involved in crafting it has revolved largely around the rules for creating CDAs. Rules matter, because the way in which CDAs are designed are likely to directly determine their developmental outcomes in Sierra Leone's mining communities, as institutional effects are very often the result of institutional design. In terms of the design of the rules for creating CDAs, interviewees cited two concerns that relate to corruption: the membership requirements for the CDA committees, and the monitoring and sanctioning mechanisms of the template.

The CDA template calls for two types of committees to negotiate and manage the implementation of a CDA: a large Community Development Committee (CDC) consisting of traditional authorities and community, government, and company representatives, as well as a smaller 5-member Technical Group that is elected from the CDC's members. The membership of these two committees is supposed to be very broadly representative of the key stakeholders within the host communities[106], and it also requires gender and age to be taken into consideration. Such broad representation is more likely to lead to the implementation of projects that better reflect the needs and desires of community members and create a greater sense of community ownership over CDA projects – as has arguably occurred in the case of Ghana.

[106] The template does not clarify how mining firms should identify who their primary host community is, an issue that could complicate or amplify membership concerns.

However, despite the representative nature of the CDC, interviewees remain wary of elite capture of CDA benefits, particularly within the Technical Group. This is due to the qualifications needed to serve in this committee, which are likely to exclude participation by all but the educated elite in a given host community since committee members are to be responsible for project financial accounting, reporting, and auditing. The involvement and potential influence of traditional elites in both the CDC and Technical Committee is purposely limited: Paramount Chiefs, section chiefs, Members of Parliament, and district councilors are prohibited from chairing the CDC, while Paramount Chiefs and Members of Parliament are prohibiting from chairing the Technical Group. But the membership rules do not specify how the role of traditional elites in mediating mining firms' access to land in the mining license process (and in pressuring firms to provide their communities with benefits as a result of granting access to land) will be rectified with the template's leadership restrictions.

The template calls for five reporting (monitoring) requirements as well as sanctioning mechanisms, increasing transparency and accountability in the CDA.[107] But only two of the five required reports are supposed to be made public: the CDC committee verbal report on proposed projects must be presented at the annual meeting of the host community, and financial statements must be published within the host community. No other reports are explicitly required to be made available and open to the public, nor are any of the CDC and Technical Group meetings. In terms of the sanctioning mechanisms established to deal with violations of the agreement, the template outlines a conflict resolution mechanism to help the parties to a CDA to resolve grievances. But

[107] The template's reporting requirements are: 1) the mineral right holder must deliver an annual community development agreement report and an annual expenditure report to the NMA; 2) the firm that audits the CDA financial statements must present a report to the CDC, NMA, and the mineral right holder; 3) the Technical Group treasurer must present audited financial statements to the CDC and the NMA Director, and must also publish all financial statements within the primary host community; 4) the Technical Group must provide to the CDC both quarterly reports as well as an annual written and oral report detailing expenditures, projects implemented, committee members, and meeting dates; and 5) the CDC Chairman must inform host community members of proposed development projects at an annual meeting.

exactly what grievances are to be reviewed by the Conflict Resolution Committee is unclear, as is the grievance resolution process. That is, the template does not provide guidance as to which grievances can be considered legitimate, and which should rather be resolved using a firm's internal grievance resolution mechanisms. Furthermore, some interviewees felt that too much power resides with the Minister in resolving conflicts between host communities and mining companies, as the Minister has the final say in any unresolved grievance.

Despite these challenges, hope abounds that the CDA will be an improved model for community-managed mining funds in Sierra Leone. As several interviewees pointed out, the CDA should overcome the problems of the DACDF, if implemented well. "While the DACDF was a kick start in terms of community beneficiation and served as inspiration for the new law", one civil society representative explained to me, "it was at the same time plagued by poor transparency, corruption, and inefficiency".[108] Another civil society representative agreed: "The DACDF was not properly implemented and monitored. The CDA will ensure that mining wealth goes back to communities because mining companies won't be able to escape their responsibility to do community development in affected areas".[109] Even the mining companies active at the time of my fieldwork agreed on the enormous potential of CDAs: "Unlike with corporate social responsibility or the DACDF, affected communities are finally going to see tangible benefits. There will be more communication with the company. And development efforts will be arranged in an independent and autonomous way, not by the company alone. People will feel like they have a say, and will feel more powerful as a result".[110] Another company representative expressed similar sentiments: "The template's rules and structures will ensure that money for the CDA will be spent properly".[111]

[108] Interview in Koidu Town, 25 September 2013.
[109] Interview in Freetown, 9 September 2013.
[110] Interview with company representative, Freetown, 2 October 2013.
[111] Interview with company representative, Freetown, 8 October 2013.

Conclusion

Community-based natural resource funds (CBNRFs) are gaining prominence in the mining sector, but there is significant variation in their effectiveness. One reason for this variation is how the design of CBNRFs enables corruption and elite capture among the local authorities responsible for fund management.

The cases of Ghana and Sierra Leone demonstrate that although local solutions are not always best for local populations, community-managed funds are not doomed. Ensuring good outcomes from these funds, and in particular safeguarding funds from the corruption and elite capture that can divert funds from their intended uses, requires good institutional design. Establishing revenue distribution institutions that include transparency, participation, accountability, and integrity mechanisms can change actors' incentives for engaging in corruption and constrain opportunities for doing so, as well as ingrain norms about transparent and accountable revenue management. The example of how CDAs have been developed and implemented in both Sierra Leone and Ghana, and in particular the important role that firms have played in pushing for and crafting these agreements, provides evidence for how the institutional quality of CBNRFs can be improved. More comparative research should be undertaken to examine CBNRFs in other contexts, in order to improve the evidence base about the importance of policy design in ensuring good outcomes that enhance the collective welfare of mining-affected communities.

CHAPTER 5: CONCLUSION

Summary: Key Findings and Lessons Learned

In this dissertation, I set out to answer three puzzles: explaining variation in the adoption of community development in mining laws; explaining variation in the design of the laws; and explaining variation in the successful implementation of the laws. I argue that mining producer states are pursuing progressive regulatory reform in order to harmonize their hard laws with soft laws. Such harmonization is necessary in order to reassure foreign investors about the security of their property rights for mining projects. Community development in mining laws create a distributive justice mechanism that resolves the company-community power and information asymmetries that lie at the heart of company insecurities. In chapter 2, I employed large-n and case study analysis to provide evidence for my argument. The cross-national analysis in that chapter showed that adopting states receive higher levels of FDI inflows, while the case study of Sierra Leone demonstrated how investor insecurities motivate mining producer countries to adopt pro-community mining laws.

Distributive justice principles and property rights security motivate the adoption of laws, but how states choose to implement these laws varies in terms of who is assigned responsibility for carrying out community development. Resource-rich governments realize that companies need investment security guarantees in the form of specific social obligations in domestic law. Yet poor states with low public goods provision in particular are unable to fulfill these obligations, and they are likely to instead "pass the buck" for this to firms. Large-n and case study analysis was again marshaled in chapter 3 to provide evidence for my argument, with the cross-national analysis and a case study of Sierra Leone showing that poor states with low public goods provision are more likely to adopt a law that outsources responsibility for community development to mining companies.

Finally, while politicians have incentives to adopt pro-community mining laws in order to attract foreign direct investment and stay in power, welfare-improving policies do sometimes fail. In chapter 4, I argue that policy failure is often a function of poor design choices. When revenue sharing institutions established for community development in mining areas contain design features that facilitate corruption and grabbing among local elites in the receipt and use of these legislated funds, equitable financial benefit sharing in mining-affected local communities is unlikely to occur. Variation in the design of community-based natural resource funds in Ghana and Sierra Leone have led to variation in levels of elite capture and corruption – and in turn, to variations in development benefits for local communities. In summary, institutional quality is key to ensure that good outcomes result from natural resource wealth.

My work highlights three important lessons for foreign investment and natural resource management. First, as I discuss in chapter 2, contrary to the conventional wisdom, globalization does not always lead to a regulatory race to the bottom. Instead, low regulatory standards can be risky for investors and leave them vulnerable, particularly on the social front. Soft law and voluntary initiatives may not sufficiently redress these vulnerabilities, necessitating a turn back to hard law. Hard law is thus not necessarily at odds with firms' desire to maximize profits; rather, using law to create a high-quality investment climate is essential to successful resource extraction and production – and profit generation.

Second, the sub-national level is as important for good natural resource management as the national level. The traditional concern of extractives industry companies in terms of securing a license to exploit has been the national government since contracts, licenses, agreements, and permits are usually negotiated at the national level. But the sub-national level is gaining in importance, with increased decentralization of natural resource governance and revenue distribution across and within states. Mining-affected communities are increasingly vocal about their expectation

to benefit from the resources extracted from their lands, and they have the material power to impose huge costs on companies by blocking operations. Hard law in the form of targeted distributive justice mechanisms can resolve powerful community-level grievances that can destroy relations with companies.

Finally, this dissertation provides further evidence of an "institutions curse", rather than a "resource curse" (Menaldo forthcoming). Resources on their own do not create good or bad outcomes for societies; rather, the way in which they are managed does. Resource management occurs via institutions at national and sub-national levels. One mechanism that has been employed to try to ensure that mining-affected areas are made better off as a result of mining operations is the targeted distribution of mining revenues to local communities via community-managed funds. These funds are a type of distributive justice mechanism that states have created to enhance property rights security. But realization of good collective outcomes – and property rights security for firms – requires careful attention to the design and strength of local-level institutions. Where institutions fail to constrain elites from siphoning off funds for private uses, community members will be no better off, posing a risk to firms' operations.

Future Research

This dissertation has raised questions in three areas that should be examined in future research: 1) the outcomes of community development in mining laws, 2) sub-national management of natural resources and revenue flows; and 3) procedural and distributive justice mechanisms in natural resource management.

Outcomes of community development in mining laws

The first and perhaps most obvious set of questions for future research revolve around the impact and outcomes of community development in mining laws. Do the laws make any difference for affected communities' welfare? Are these communities better off in terms of public goods provision as a result of implementing legal requirements for community development, as opposed to voluntary standards and programs? How are revenues spent at the local level, and what happens when mining operations, and thus community development revenues, stop? Finally, what impact might the laws have on economic inequality levels within resource rich states? While a potential upside to implementing targeted revenue distribution policies is that they can rectify inequalities between affected communities and non-affected communities, they could also potentially increase inequalities within and across groups (Humphreys, Sachs, and Stiglitz 2007).

More investigation should be undertaken to understand the impact of the laws on shaping the dynamics of community-firm relationships, particularly laws with high levels of responsibility for firms. An issue of rising concern for mining companies is the apparent increase in conflicts in the mining sector, particularly violent acts carried out by affected communities and aimed at companies, such as protests and riots (ICMM 2015; Berman et al 2014). Are beneficiary communities more satisfied with hard laws requiring community development than with voluntary initiatives? Do community development in mining laws translate into less community opposition to mining operations? How do firms incorporate the laws into their existing corporate social responsibility programs?

Evidence I gathered in Sierra Leone about how key stakeholders there (government, civil society, mining companies, and local communities) were preparing to implement the country's community development legal requirements in the mining sector suggest that a legal framework could have a positive effect on company-community relations, for two reasons. First, interviewees

anticipated improved community management of expectations regarding companies since the new law provides clarity about company responsibilities towards affected communities. Second, the law's requirement for a negotiated agreement in the form of a CDA provides a way for host communities to participate in managing their affairs and finances towards positive collective ends. As a result, host communities have a stronger voice in their relations with mining companies, are more likely to benefit from projects that better reflect their needs and aspirations, and they also have an enforceable right against companies.

Sub-national resource and revenue management

An increasing number of countries are decentralizing responsibility for natural resource management to local governments, including collection and distribution of resource revenues (Bartley et al 2008). There is a need for a comprehensive overview of decentralization reforms and sub-national revenue flows across natural resource sectors and countries, and for an examination of the challenges and effects of decentralizing authority over resources. For instance, Kenya recently devolved many resource management functions to county governments in its new Constitution, but many questions remain as to how this will work out in practice, and about how to resolve the ongoing struggles between national and local governments regarding political authority over the country's valuable natural resources.

Spending of resource revenues at sub-national levels is an issue gaining greater scholarly and policy attention. As chapter 4 of this dissertation illustrates, sub-national management of natural resource revenues can be just as problematic as their national-level management. Given the reluctance of the most prominent international transparency and accountability initiative in the extractive industries (the Extractive Industries Transparency Initiative) to move beyond a publish-what-you-pay, national-level focus on resource revenues, new mechanisms and research are needed to ensure good management of sub-national resource revenue collection and expenditures.

Procedural and distributive justice mechanisms in natural resource management

In this dissertation, I argue that creating a distributive justice mechanism in hard law rectifies the inequitable balance in who bears the costs, and reaps the benefits, of mining operations, reassuring mining companies that their investments will be secure. Where these laws are implemented, there is at least the possibility that both companies and communities will be better off than under other legal arrangements or voluntary initiatives.

Distributive justice mechanisms fall into three categories: equity, equality, and need (Smith and McDonough 2001). "Equity suggests everyone should get rewards in proportion to their efforts or costs. Equality requires that everyone benefit equally regardless of costs or efforts. Finally, need requires that people receive benefits according to their needs" (ibid, 240). Community development in mining laws rarely specify exactly who in an affected community should benefit, how, and why. In designing and implementing the laws, how do stakeholders decide on which of the three criteria is most important, and with what effects?

Additionally, just as important as understanding the workings and outcomes of distributive justice mechanisms is knowing more about the process of reaching decisions when implementing distributive policies. Research shows that individuals are likely to be satisfied with a less-favorable outcome or decision if they view the decision-making process as being fair (Tyler et al 1997; Hechter 2000). While previously I called for more research on the outcomes of community development in mining laws, another important avenue of investigation is about the process of implementing those laws. Even if companies adhere to their legal responsibilities to carry out community development, communities may remain dissatisfied with mining operations if companies do not engage in a participatory or fair process for deciding about what types of projects to implement and how they will be implemented.

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APPENDIX 1: LIST OF COMMUNITY DEVELOPMENT IN MINING LAWS

Description of Community Development in Mining Laws	
Country (years)	**Basic summary of legislation**
Afghanistan (2010)	Environmental Management Plan must state how firm will ensure benefits to local communities, and community development plan must be submitted with license application.
Canada (2002)	Companies are required to sign Impact and Benefit Agreements.
Central African Republic (2009)	Firms must submit community development plan to mining authority with permit application.
China (1986)	Government should ensure economic development of mining areas.
Colombia (1994)	Firms must submit community development plan to mining authority.
Democratic Republic of Congo (2002)	Government shall use mining royalties and surface rights fees to fund construction of infrastructure for local communities. Environmental Management Plans must outline socio-economic development plans for local community, and criteria for mining rights allocation includes quality of socio-economic benefits for community.
Ecuador (2009)	Government shall funnel percentage of royalties and profits from sale of minerals to local governments for local development projects in affected communities.
Equatorial Guinea (2006)	Project contractor must perform social works in jurisdiction of operations.
Ethiopia (2010)	Government shall ensure mining operations are beneficial to affected communities. Mining companies must participate in the community development plans of their license area by allocating money to the government-administered Community Development Fund.
Fiji (2006)	Landowners are entitled to receive share of mining royalties from the Mineral Royalty Trust Fund. Project operator must establish a community development plan.
Ghana (1991)	Established the Mineral Development Fund, which funnels royalties to local governments and traditional authorities for community development projects.
Guinea (2011)	Firms must implement Community Development Agreements.
India (2011)	Project operators must include corporate social responsibility document to mining plans, and contribute to government-administered district mineral funds that benefit affected communities.
Indonesia (2009)	Mining license holders shall create a community development program. Corporate social responsibility is legally required.
Kazakhstan (2010)	Winning bids for mining rights are judged on ability to contribute to social and economic development of affected area. Mining contracts must contain information on social and economic development plans for local communities.
Kyrgyzstan (2012)	Mineral rights holder must implement an agreement for socio-economic development in local communities.

Laos (2008)	Mining investors must provide community development in affected areas.
Mali (2012)	Firms must implement Community Development Agreements.
Mongolia (2006)	Large-scale mining operations must commit to developing the affected region.
Mozambique (2002)	Part of mining taxes redistributed to mining areas for use on services.
Nicaragua (2001)	Part of the royalties from mining (3%) must be directed towards a Mining Development Fund.
Niger (2006)	Government redistributes percentage of mining revenue to local jurisdictions to fund community development.
Nigeria (2007)	Firms must implement Community Development Agreements.
Papua New Guinea (1992)	Development Forum required with those affected by mining, leading to signing of Memorandum of Agreement with affected communities for socio-economic benefits.
Peru (2004)	Firms must implement corporate social responsibility programs to mitigate impact of mining. Mining royalties distributed back to affected communities.
Philippines (1995)	Mining royalties are paid to indigenous communities for socio-economic purposes. Companies required to assist in development of affected communities.
Sierra Leone (2001; 2009)	Percentage of mining royalties are redistributed to diamondiferous local communities. Large-scale mining operations must implement Community Development Agreements. Firms must also submit Community Development Plans with social impact assessments.
South Africa (2002)	Companies must implement Social and Labor Plans that facilitate socio-economic development of affected communities.
South Sudan (2012)	Firms must implement Community Development Agreements and corporate social responsibility programs.
Vietnam (2010)	Government shall allocate percentage of mining revenues to support socio-economic development in mining areas. Project operators must also fund social welfare works for mining areas.
Yemen (2010)	Firms must implement Community Development Agreements.
Zimbabwe (2010)	Community Share Ownership Trusts are used to provide social infrastructure in mining areas.

APPENDIX 2: LIST OF INTERVIEWEES

SIERRA LEONE

Number	Date, place	Interviewee
1	21 July 2013, telephone	World Bank representative
2	30 July 2013, telephone	International consultant
3	31 July 2013, telephone	Former INGO representative
4	1 August 2013, telephone; follow-up interview on 11 September 2013	World Bank representative
5	9 September 2013, Freetown	NGO representative
6	10 September 2013, Freetown; follow-up interview on 8 October 2013	Bilateral donor agency representative
7	10 September 2013, Freetown	Bilateral donor agency representative
8	11 September 2013, Freetown	Representative of National Minerals Agency (government)
9	11 September 2013, Freetown	NGO representative
10	11 September 2013, Freetown; follow-up interview on 3 October	INGO representatives
11	12 September 2013, Freetown	World Bank representative
12	12 September 2013, Freetown	NGO representative
13	12 September 2013, Freetown	Journalist
14	18 September 2013, Bo District	Paramount Chief
15	18 September 2013, Bo District	Mining company representative
16	18 September 2013, Bo District	Town Chief
17	19 September 2013, Port Loko District	Paramount Chief
18	19 September 2013, Port Loko District	Youth group representative
19	19 September 2013, Port Loko District	Women's group representative
20	20 September 2013, Tonkolili District	Chiefdom Speaker
21	20 September 2013, Tonkolili District	Community group
22	20 September 2013, Tonkolili District	Community group
23	20 September 2013, Tonkolili District	Community group
24	20 September 2013, Tonkolili District	Community group
25	21 September 2013, Bonthe	Paramount Chief

	District	
26	21 September 2013, Bonthe District	Youth group representatives
27	21 September 2013, Bonthe District	Local government representative
28	22 September 2013, Bonthe District	Youth group representative
29	22 September 2013, Bonthe District	Paramount Chief
30	23 September 2013, Bonthe District	Local government representative
31	23 September 2013, Bonthe District	Land owners representative
32	23 September 2013, Bonthe District	Journalist
33	23 September 2013, Bonthe District	Land owners representative
34	23 September 2013, Bonthe District	Mining company representative
35	25 September 2013, Kono District	Consultant/NGO representative
36	25 September 2013, Kono District	Mining company representative
37	25 September 2013, Kono District	Women's group representatives
38	25 September 2013, Kono District	Land owners representative
39	26 September 2013, Kono District	Paramount Chief
40	26 September 2013, Kono District	Community group
41	26 September 2013, Kono District	Community group
42	26 September 2013, Kono District	Senior Section Chief
43	27 September 2013, Kono District	Mining company representative
44	27 September 2013, Kono District	Local government representative
45	27 September 2013, Kono District	Community representative and local government representative
46	1 October 2013, Freetown	INGO representative
47	1 October 2013, Freetown	Mining company representative
48	8 October 2013, Freetown	Mining company representative
49	9 October 2013, Freetown	Meeting of committee developing CDA template
50	10 October 2013, Freetown	Mining company representative
51	11 October 2013, Freetown	Representative of Ministry of Mines
52	12 October 2013, Freetown	International consultant

53	14 October 2013, Freetown	International consultant
54	17 October 2013, Tonkolili District	Government mines monitor
55	17 October 2013, Tonkolili District	Mining company representative
56	17 October 2013, Tonkolili District	Local government representative
57	18 October 2013, Freetown	Mining company representative
58	30 October 2013, via email	Mining company representative

GHANA

Number	Date, place	Interviewee
1	22 October 2013, Accra	NGO representative
2	23 October 2013, Accra	Representative of Ghana Chamber of Mines
3	23 October 2013, Accra	NGO representative
4	23 October 2013, Accra	University professor
5	24 October 2013, Accra	Representative of government Minerals Commission
6	28 October 2013, Ntotroso	Mining company representative
7	29 October 2013, Ntotroso	Community representative
8	30 October 2013, Obuasi	Mining company representative
9	1 November 2013, Tarkwa	University professor
10	4 November 2013, Prestea	Mining company representative
11	5 November 2013, Prestea	Community chief
12	5 November 2013, Prestea	NGO representative
13	5 November 2013, Bogoso	Community chief
14	6 November 2013, Tarkwa	Mining company representative
15	7 November 2013, Tarkwa	Traditional council representative
16	14 November 2013, Accra	Think tank representative
17	15 November 2013, Accra	Representative of Ministry of Energy and Petroleum