

Title: Frameworks for conflict mediation in international infrastructure development: A comparative overview and critical appraisal

Authors: Stephen Lezak, Ariell Ahearn, Fiona McConnell, Troy Sternberg

Abstract:

While the extractive industries, and their related infrastructure complexes, are highlighted as key to economic development, they often come at a cost. Most infrastructure projects involve a network of “stakeholder” parties; even though developers are allocating more resources to stakeholder engagement, conflict surrounding infrastructure development continues to rise. Whilst the causes of this paradox are numerous, ranging from the increasing demand for natural resources to the limited regulatory capacity of governments in the global south to oversee developers, they also highlight the lack of engagement with effective conflict resolution mechanisms. This paper undertakes a comparative review of 21 existing frameworks or “toolkits” presented by international organizations for avoiding and resolving mining-related conflicts in emerging markets. This analysis has four aims: i) to identify the dominant trends in frameworks that address conflict arising from the extractive industry and related infrastructural systems; ii) to identify the weaknesses and limitations of existing frameworks; iii) to assess opportunities for innovation that might increase the adoption of more effective conflict resolution strategies; iv) to forecast how existing frameworks may need to adapt and respond to emerging global shifts in development investments. Addressing these aims will contribute to understandings of conflict resolution discourses presented in existing frameworks including the procedures and strategies identified, and how agency and participation is conceived.

1. Introduction:

In October 2012, a Mongolian NGO filed a formal complaint with the Office of the Compliance Advisor/Ombudsman (CAO) of the International Finance Corporation (IFC). The CAO mediates disputes that originate from IFC-funded development projects. In this case, the project in question was the Oyu Tolgoi gold and copper mine, one of the largest discovered deposits of its kind (Porter, 2016). The complaint, submitted on behalf of local nomadic pastoralists, asserted that Oyu Tolgoi negatively affected the community’s socio-economic prospects and was responsible for water and pasture impacts that threatened livelihoods. This initiated a CAO-led arbitration and dispute resolution process between three parties: Rio Tinto (the mine’s parent company), the local government, and the local community. What followed was a carefully choreographed process of joint fact-finding, training and capacity building, developing and articulating negotiation positions, and mediation. Seven years later, an agreement has been reached and the strained relationship between Oyu Tolgoi and the local community has improved. Across the industry, the Oyu Tolgoi conflict is widely regarded as exceptional, both for its success in assembling various stakeholders and the bilateral acceptability of the brokered outcomes (Edwards, 2017). Most mining-related conflict in emerging economies does not unfold so neatly, often because dispute resolution, where it occurs, is conducted in a largely ad hoc manner (Kemp, 2010). This is a feature of an industry that is poised to reshape emerging economies in the 21st Century.

Infrastructure has been positioned by the World Bank Group as an agent of change and transformation to address the challenges of achieving sustainable economic development and the United Nations Sustainable Development Goals (SDGs) (World Bank, 2018). A recent analysis found that 72% of the SDG's targets require infrastructure (either directly or indirectly) for their attainment (Thacker et al., 2019). While “infrastructure” broadly describes the physical structures that catalyze and facilitate global development, it can also be understood as systems involving “complex chains of material relations” (Harvey et al., 2016, p. 32). This framing is particularly relevant for the extractive sector, which relies heavily on the creation of its own infrastructural complexes (including pipelines, electrical supply, and transport) to aid production and connect to global supply chain networks.¹ The demand for minerals and metals continues to rise, as processes of global urbanization and infrastructural development rapidly unfold.

While the extractive industries (and their related infrastructure complexes) are highlighted as key to national economic development, they often come at a cost. Changes to use of land and water, human displacement, toxic contamination, and economic disenfranchisement are characteristic negative impacts of infrastructure (Buckles 1999; Thacker et al., 2019). Many infrastructure projects involve a network of “stakeholder” parties, often situated in complex political contexts across multiple geographical scales. Conflicts quickly erupt between stakeholders who wish to build and those who feel their rights to land and livelihood threatened and exploited by proposed developments. Unequal power relations between local residents, foreign investors, urban elites and migrant laborers are often at play and have the potential to inflame and exacerbate conflicts. Extractive industries have also been associated with injustices such as forced labor and forced resettlement, as well as transformations in socio-economic relations including customary institutions, gender, class and political forms (Engels and Dietz, 2017, p. 2). The contested nature of extraction, and issues of social justice have been well-documented in the academic literature in anthropology, development studies and human geography (Bebbington and Humphreys Bebbington, 2018; Chatty, 1996; Engels and Dietz, 2017; Hilson, 2002; Lamb et al., 2019; Li, F. 2015, Lyall and Valdivia, 2019, Wayland 2019).

Despite the gradual mainstreaming of “stakeholder engagement” and “good governance” in development discourse, the incidence of documented conflict between developers and affected communities has risen. For example, in the mining industry, the rate of conflict multiplied several times over between 2002 and 2012 according to data from the International Council on Mining and Metals (Andrews et al., 2017; Hodge, 2014). The Compliance Advisor Ombudsman of the IFC currently has 46 open complaint cases related to infrastructure projects in 29 countries on its website, citing concerns ranging from “land acquisition, forced eviction, [and] community consultation” to threatened biodiversity and critical habitats (Compliance Advisor Ombudsman, n.d.). This escalation has occurred despite efforts made by organizations such as the Extractive Industries Transparency Initiative, Natural Resources Governance Institute, and International

¹ Although infrastructure development and mining share some commonalities, extraction has many notable differences from other infrastructures. Mines and petroleum producers are highly vulnerable to global commodity markets, extraction features a degree of geologic uncertainty which makes project duration difficult to pin down (Weszkalnys, 2015) and extraction is constrained by the fixed physical geographies of resources. Additionally, the intensity of land disturbances associated with extraction means that displacement, pollution, and conflict can occur at any point during a decades-long project lifecycle (Owen and Kemp, 2015). These differences have sparked debate as to whether extractive industries should be viewed as a poster child for infrastructure or as a separate entity in its own right (Owen and Kemp, 2015). While we acknowledge the heterogeneity of infrastructural development in light of this, we also note the way in which extractive industries serve as an archetype of infrastructure rather than an exception.

Council on Minerals and Mining (ICMM) to bring about more sustainable forms of infrastructure development (Addison and Roe, 2018). Academics have documented that developers routinely deal with complaints and conflict on an *ad hoc* basis, responding to conflict rather than preempting it (Davis and Franks, 2014; Franks et al., 2014). Despite these international efforts and a shift in corporate discourse, conflicts at the local scale remain prevalent and continue to escalate (Gedicks, 1993.; Helwege, 2015).

The objective of this paper is to conduct a comparative review of 21 existing frameworks or “toolkits” presented by international organizations for avoiding and resolving mining-related conflicts in emerging markets. Through this analysis, we seek to address four aims: i) to identify the dominant trends in existing frameworks that address conflict arising from the extractive industry and related infrastructural systems; ii) to identify the weaknesses and limitation of existing frameworks; iii) to assess opportunities for innovation that might increase the adoption of more effective conflict resolution strategies; iv) to forecast how existing frameworks may need to adapt and respond to emerging global shifts in development investments. Addressing these aims will build upon past research that studies infrastructural conflict whilst contributing a more nuanced understandings of how conflict resolution discourses succeed and fall short of their aims.

The remainder of this article is divided into five sections. In Section 2, we provide a broad overview of community-developer conflict in the infrastructure sector, with particular focus on extractive industry. In Section 3, we discuss our methodology for identifying international conflict resolution frameworks and Section 4 presents a review of the 21 frameworks identified and analysis of the tools proposed, implementation timeframes and mechanisms for engagement and participation. In Section 5, we discuss challenges and opportunities for identifying and mainstreaming best practices and consider the future of infrastructure in emerging markets. Section 6 concludes and summarizes our findings.

2. Background

2.1. The connection between infrastructure and conflict

Infrastructure and extraction pose serious costs to local communities, most prominently in the loss of land, environmental resources, livelihood viability and cultural heritage. Most large projects invariably involve transforming landscapes in ways that both curtail and expand mobilities and opportunities (Bebbington and Bebbington, 2018). Some of these transformations are direct, as with a dam that floods a river valley; others are indirect, as with access roads, fences, or an influx of foreign workers (Davis and Franks, 2014). Relative to wealthy investors and developers, local stakeholders—particularly those with livelihoods inextricably linked to land—have more at stake (Bavinck, Pellegrini and Mostert 2014; Owen and Kemp, 2014).

In this environment, infrastructure developers routinely fail to anticipate and plan for tensions between communities and developers (Davis and Franks, 2014; Franks et al., 2014). Belated mediation is evidenced by the industry practice of allocating mediation costs (e.g. for resettlement) into operational expenditures rather than capital expenditures, as if mitigating conflict with local communities were a variable expense rather than a fixed up-front investment (Owen and Kemp, 2015). Unsurprisingly, this tendency to delay mediation is un-economical: the cost of resolving conflict becomes rapidly more expensive as a project lifecycle advances (Owen and Kemp, 2015). Nevertheless, developers have fallen into the habit of dealing with conflict on

an ad-hoc basis, such that crisis situations have become the most effective levers for realizing change in developer-community relations (Kemp and Owen, 2013).

Displacement, elite capture of resources, and environmental degradation are but a few of the many ways in which the extractive industries and conflict are entangled (Bebbington et al., 2008; Gilberthorpe and Banks, 2012). There are numerous, interrelated explanations for why these conflicts occur, persist and escalate presented in academic literature. First among these is the ongoing and growing global demand for natural resources. This has caused extractive industries and related infrastructure to expand into previously underdeveloped areas. New technologies have also enabled extraction in formerly inaccessible regions (Eliasson et al., 2017). Meanwhile, the cost of resource extraction in the Global North has steadily climbed, due to stricter environmental regulations and the exhaustion of accessible and high-grade resource deposits (Deutch, 2011; Maconachie and Hilson, 2013; Mudd, 2004; Murguía and Böhling, 2013). A second explanation for the rise of conflict is the gradual neoliberalization of developing economies in the 1980s and 1990s. In particular, the implementation of structural adjustment programs, which sought to attract foreign investment, limited the regulatory capacity of governments to oversee developers (Campbell, 2012; Maconachie and Hilson, 2013; Moomen, 2017). An third factor in perpetuating conflict—and the focus of this article—are limitations in how developers engage in effective conflict resolution mechanisms (Gilberthorpe and Banks, 2012; Owen and Kemp, 2015; Sarkar et al., 2010).

2.2 The costs of conflict

For decades, resource developers have been called upon to become more accountable to local stakeholders in the course of their operations. This dialogue emerged in tandem with the emerging global conscience of the Western political left in the 1960s and 1970s, at a time when globalization, overconsumption, and world population growth occupied center-stage in European and North American political discourse (Maconachie and Hilson, 2013). The term “corporate social responsibility” (CSR) became the cornerstone of conversations about infrastructure and conflict (Blowfield and Frynas, 2005; Kemp and Owen, 2013). At its inception, CSR focused on upholding a moral obligation to vulnerable stakeholders—namely, communities directly affected by the impacts of development (Brooks and Oikonomou, 2018). This rhetoric cast CSR as a noble sacrifice of financial performance in service of the common good. Some liberal economists emphatically rejected the premise; Milton Friedman wrote in a *New York Times Magazine* headline that “The Social Responsibility of Business Is to Increase Its Profits” (1970: 32).

In recent years, CSR has been recast. No longer a moral sacrifice, it is regarded as an essential component of optimizing profitability and mitigating risk (Henisz et al., 2014). In the extractive industry, this transition has been validated by a growing body of scholarship that quantifies the costs of conflict to developers (making a “business case”). Many of these costs are incurred concretely, as in the case of construction delays, lost capital productivity, or intentional property damage (Davis and Franks, 2014; Franks et al., 2014). Others accrue indirectly, such as reputational harm or decreased workforce productivity (Henisz et al., 2014). Analyses consistently find that the cost of conflict is usually greater than the cost of mitigating community-developer disagreements in a timely and proactive manner (Davis and Franks, 2014; Franks et al., 2014; Owen and Kemp, 2015, p. 2015). International investors have also taken note. The financial valuation of gold mines, holding constant the objective value of physical assets, is positively correlated with company-led stakeholder engagement efforts (Henisz et al., 2014).

2.3 Current pathways for conflict resolution

Despite the reframing of CSR as “enlightened self-interest” (Henisz et al., 2014: 1744) and developers allocating more resources to stakeholder engagement, global conflict surrounding infrastructure development continues to rise (Bebbington, 2014; Hodge, 2014). In recent years, academics and NGOs have noted the lack of industry consensus regarding best practices for mediating conflict between communities and infrastructure developers (Davis and Franks, 2014; Gilberthorpe and Banks, 2012; Kemp et al., 2011; Owen and Kemp, 2015; Sarkar et al., 2010). This persists in spite of the proliferation of three interrelated types of instruments all aimed avoiding or mediating conflict: institutional lending standards, international laws, and third-party frameworks specifically pertaining to the impact of infrastructure development.

Standards associated with mining investments provide key pathways for conflict resolution. Many international financial institutions have mainstreamed social and environmental safeguards and grievance mechanisms based on guidelines such as the Equator Principles. For example, each of the top 10 international investment banks have different safeguarding standards, performance monitoring frameworks and grievance mechanisms (Wright, 2012). Yet implementation of these standards is largely dependent upon a range of investment structures and requirements. For example, financing for the exploration phase of a project may come from different sources and be led by a patchwork cast of companies (Miranda et al., 2005), creating incongruent expectations for local stakeholders. The sheer diversity of financing bodies—public, state-owned enterprises, regional development banks, private actors, and public-private partnerships—adds a further layer of complexity to an already complex landscape of international capital flows and legal uncertainties. This can be especially true when equity-poor local governments must rely on wealthier nations to finance large investment projects (World Bank, 2018). The internationalization of these funding streams adds to the geographic and cultural complexity of conflict between key stakeholders in the development of mines, particularly as mediation efforts become entangled in questions of international law and accountability. In regions with more hostile physical geographies and/or with lower international investment ratings, investments in infrastructure and mining may come from a range of smaller companies, SOEs or even military-private partnerships (Büntel 2018). In many cases, environmental and social impact assessments amount to bureaucratic exercises rather than a real opportunity for public engagement and review (Dougherty 2019).

The practices of international infrastructure developers are subject to an array of international conventions and laws (International Alert, 2005). International Labor Organization (ILO) and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) have contributed in recent decades to strengthening local peoples’ ability to resist development and assert sovereignty (Moomen, 2017). Similarly, the United Nations High Commission for Refugees’ (UNHCR) Guiding Principles on Internal Displacement (1998), whilst not a legally binding instrument and thus not enforceable, establishes standards that outline the protections available to internally displaced people (2004: Principle 6.2.c). Other relevant international laws are listed in Table X.

Issue	Relevant International Law
-------	----------------------------

Indigenous Peoples	<ul style="list-style-type: none"> • UN Declaration on the Rights of Indigenous Peoples • ILO Convention 169: Indigenous and Tribal Peoples • Organization of American States: American Declaration on the Rights of Indigenous Peoples
Resettlement	<ul style="list-style-type: none"> • Geneva Conventions and Additional Protocols I and II
Human Rights	<ul style="list-style-type: none"> • UN International Covenant on Civil and Political Rights • International Covenant on Economic, Social and Cultural Rights • UN Human Rights Code of Conduct for Companies • ILO Conventions on Human Rights
Environmental Impact	<ul style="list-style-type: none"> • UN Rio Declaration on Environment and Development • UN Rio Convention on Biological Diversity
	<ul style="list-style-type: none"> • UN Guiding Principles on Business and Human Rights
Labour	<ul style="list-style-type: none"> • ILO International Labour Standards • ILO Tripartite Declaration of Principles concerning Multilateral Enterprises and Social Policy;

Table X: International Law relevant to infrastructure-related conflict, modified and adapted from International Alert (2005)

Lastly, a proliferation of “frameworks,” “toolkits,” and “conflict mediation guides” offer guidance to corporations, development practitioners, and sometimes mediators on voluntary practices to anticipate conflict, mitigate or resolve stakeholder disputes. This body of literature is the focus of Sections 3, 4, and 5 of this paper.

2.4 The resource-infrastructure governance gap

The proliferation of voluntary best practices and standards, without an industry-scale required standard, is compounded by the fragmented nature of environmental governance in many emerging markets. In many countries with high rates of new infrastructure development, legal systems often give a wide berth to firms to managing local conflict, rather than provide government resources for mediating disagreements (Hilson, 2002). In some cases, this may be due to the government’s inability to project power into sparsely populated rural areas. In other instances, the legacy of late-20th Century liberalization has created an operating environment in which governments are deliberately removed from the development arena (Hilson, 2002; Owen and Kemp, 2015; Russell, 2011). These phenomena are often intertwined. Gilberthorpe and Banks, in a study of extractive industry CSR in Papua New Guinea, describe “the weakness and in many instances, sheer incapacity of the State to regulate not just the corporations involved, but also the communities with which the companies find themselves entangled” (2012: 187-88). In Mongolia, the Oyu Tolgoi conflict largely bypassed the national government, involving international lenders and NGOs instead (Meesters and Behagel, 2017). Academics studying a large copper mine in Zambia document how the corporate actor was able to effectively bypass the local government, claiming that its compliance with national laws was sufficient (Van Alstine and Afionis, 2013). In many instances like these, governments often have a conflict of interest in regulating large-scale infrastructure projects, especially when the anticipated tax revenue incentivizes regulatory deference. In some cases, governments may even be in debt to developers (e.g. Oyu Tolgoi in Mongolia). Lastly, infrastructure investments tend to be massive in scale, heterogenous, and “lumpy” (i.e. indivisible), which reduces public actors’ abilities to learn and develop more efficient protocols for developers.

Addison and Roe (2018) provide a simple heuristic that captures the range of company types and governance environments where extraction may occur: “effective and inclusive government working with enlightened companies is the ideal combination. Ineffective and divisive government combined with rogue companies is the worst” (p. 16). The authors point out several cases where economies with a strong reliance on natural resource extraction also feature dictatorships, military rule or complex governance arrangements (e.g. Afghanistan, Turkmenistan, Nigeria, etc.)—characteristic of what is sometimes called the “curse of natural resources” (Sachs and Warner, 2001).

In these contexts, firms are left to self-regulate; many even provide quasi-governmental services, such as building roads, airports, or energy distribution systems (Maconachie and Hilson, 2013; Van Alstine and Afionis, 2013). In such cases, the dynamics of dependency and power become major factors in communities’ efforts to negotiate accountable infrastructure development (Owen and Kemp, 2015). The lack of accountability to government adds to an incentive structure whereby firms are primarily concerned with meeting the criteria of international investors or organizations like the IFC (if they are present at all); this tends to generate technocratic management systems that eschew the importance of local political legitimation (Campbell, 2012) and forms of justice which go beyond distribution (i.e. compensation) (Kemp, 2010). The absence of meaningful engagement with affected populations leads firms to pursue operations without having obtained “the social license” to do so (Campbell, 2012; Davis and Franks, 2014; Henisz et al., 2014). What results are ad-hoc conflict management systems that may “perform” well, according to international expectations, but generate discontent among communities who feel that their needs, demands or grievances are not being met by the limited conciliatory actions of industry (Gilberthorpe and Banks, 2012).

Given the complexity of the inputs to this governance gap, it is perhaps unsurprising that conflicts continue to proliferate, despite the expansive scholarship which has aimed to understand its causes. In this past section, we have given a brief introduction to infrastructural and extractive conflict. This overview has touched upon the sorts of conflict that arise from infrastructure and resource extraction, how this conflict incurs costs, the landscape of tools available to for resolving stakeholder disputes, and the notably absent role of government in many of these processes. We now turn to the first aim of this paper: to review and analyze the body of literature produced in an effort to resolve and mediate conflicts.

3. Data and Methods

Given the range and persistence of company-community conflict in the extractive industries, this review investigates dominant trends in recently published frameworks that address conflict arising from the extractive industry and related infrastructural systems. Adapting the systematic review methodology of Savage et al. (2019), we used a range of sampling strategies to identify relevant documents and subsequently employed Ritchie and Lewis’s (2003) “framework method” to analyze them.

3.1 Sampling stage

In the sampling stage, we undertook an initial search process to achieve a broad, low-resolution perspective on existing academic and grey literature. Using a combination of academic and non-academic databases and unstructured searches, we generated a “start set” (Wohlin, 2014) of

resources.² This start set—nine academic papers, industry publications, and NGO reports—allowed us to advance to the subsequent step in the sampling stage: structured and semi-structured searches. We generated a list of initial key terms, reference documents, and exclusion criteria.

We excluded a number of categories from analysis, including documents not related to infrastructure or mining (e.g. *Alternative Dispute Resolution Manual: Implementing Commercial Mediation* (World Bank); transboundary conflicts (e.g. *A Nexus Approach to Transboundary Cooperation* (United Nations); unpublished PhD dissertations; sustainability reporting practices (e.g. *Sustainability Reporting Guidelines & Mining and Metals Sector Supplement* (ICMM); and national or sub-national legal frameworks (e.g. *Displacement and Resettlement of People in Development Activities* (Australian Department of Foreign Affairs and Trade). We additionally excluded documents related explicitly to inter-community conflict rather than community-developer conflict (e.g. “Investing in Multi-Stakeholder Dialogue” (Ratner et al., 2018). Additionally, we excluded frameworks that were narrowly focused on a particular resource conflict and were not generalizable to a wide range of developments (e.g. *Water and Conflict Toolkit* (USAID). We also excluded documents that specifically address macro-level policymaking, without intending to address conflict at the level of specific developments and documents that relate specifically to groups classified as Indigenous, as these communities are subject to specific protections under international law (e.g. Indigenous Peoples and the Human Rights-Based Approach to Development (UNDP). We limited our search to English-language publications that deal specifically with community-developer relationships in the development of infrastructure in the Global South. This exclusion was made in light of the observation that English is almost exclusively used for development documents, which, by their nature, are intended for international audiences (Crystal, 2012; Zanola, 2012). We acknowledge that this exclusion may have limited our search results, particularly for regions such as South America where one language (Spanish) is broadly used. We also limited our search to documents published since 2000. This exclusion is based on the conjecture that few developers today are likely to be using 20-year-old documents, given the regular updating and republishing of those documents that are consistently used, such as the *ICMM Community Development Toolkit*.

Our search techniques were designed specifically for their ability to yield results in “grey literature”—that is, documents that do not appear in the format of a peer-reviewed journal or a published book. While there exists no agreed upon standard for conducting systematic grey literature reviews (Paez, 2017), we developed a broad-based indexing strategy designed to identify those mediation frameworks that are most prominent and accessible to an English speaking audience. We employed three primary techniques to assemble a list of existing frameworks following the familiarization and thematic framework development: 1) a semi-structured “snowball” search of academic and grey literature documents (Wohlin, 2014); 2) a structured database and search-engine search (Mahood et al., 2014); and 3) handsearching the publication lists of relevant industry groups, NGOs, and governmental organizations.

² The nine frameworks in the “start set” were *Conflict-Sensitive Business Practice*, *Strategic Community Investment*, *Participatory water monitoring*, *Responsible Mining*, *IFC Performance Standards*, *Mining Community Development Agreements*, *Community Development Toolkit*, *Good Practice Note: Community Development Agreements*, *Natural Resources and Conflict: A guide for mediation practitioners*

An unavoidable element of any grey literature review is the challenge of creating reproducible (and by extension, systematic) results. Online search engines such as Google and Google Scholar exhibit certain black box features that personalize search results, generating a “bubble effect” (Ćurković and Košec, 2018). While the resulting dataset is nonreproducible, our findings in the familiarization stage revealed the importance of Google searches for retrieving documents that were not indexed on databases such as ProQuest. In light of this, we chose to include Google in our database searches. In an effort to keep these searches as unbiased as possible, we used StartPage (www.startpage.com), a “meta-search engine” (Ćurković and Košec, 2018: 2) that employs Google algorithms while withholding identifying information that contributes to the so-called bubble.

Our semi-structured snowball search involved handsearching the bibliographies of relevant documents, journal publications, and industry reports. Our structured database search analyzed the first 100 results from Google (via StartPage), Web of Science ProQuest, and Google Scholar. Our search was conducted using the following query (NB: Boolean operators were modified to accommodate Google algorithms. All searches were conducted in February 2019): Lastly, we also consulted the websites of several leading industry groups and NGOs, examining their publication lists for relevant documents.

3.2. Analysis stage

To analyze the collected frameworks, we used “framework analysis”, a method designed by Ritchie and Lewis (2003).³ We chose this method for its past use in applied policy research, especially in combination with qualitative datasets where data reduction is essential to successful analysis (Gale et al., 2013; Parkinson et al., 2016). Given the nature of our dataset—hundreds of pages of text without standardized formatting—we found that framework analysis was an optimal tool for data reduction whilst preserving complexity and nuance. The collected frameworks were analyzed and charted using the thematic framework identified in the sampling stage. The method employs five stages for assessing an already-assembled body of texts: familiarization; identifying a thematic framework; indexing; charting; and interpretation.

In the first stage, the body of documents is reviewed by researchers to familiarize themselves with the central themes and the variations between cases. From this exercise, a “thematic framework” was identified and is presented in the appendix. This framework allowed us to significantly reduce our total dataset, from over 750,000 words to a much more manageable set of descriptive criteria for each document. These criteria, or codes, were selected to answer certain questions about each framework. The codes we selected are presented in Table X.

Code:	Criteria:
Primary descriptor	How the document self-describes
Regional or global focus	Does the document focus on infrastructure in a particular region or is it globally oriented?
Anticipatory or interventionist disposition	Is the document meant to be applied mid-conflict or before conflict has arisen?
Outcome or process orientation	Does the document focus on processes to resolve conflict or outcomes that should be

³ We note that the use of the word “framework” in “framework analysis” is distinct from how we have used the term to refer to conflict mediation documents.

Leadership	achieved? Does the document assume that either industry, local stakeholders or others will lead the conflict-resolution or prevention process?
Target sector	Does the document target a particular industry or sector?
Primary audience	Who is the target audience of the document?
Case studies cited	Does the document focus on any particular case studies?
Discussion of consent or FPIC	Does the document explicitly mention “consent” or “free, prior, and informed consent”?
Stakeholder engagement tools or techniques	What sort of tools does the document propose?
Other reports cited	Does the document cite other conflict-resolution frameworks in this review?
Training or capacity-building for local stakeholders	Does the document suggest providing training or capacity-building for local stakeholders to help facilitate the conflict-resolution process?

Table X: Thematic framework

Each framework was reviewed and analyzed according the codes above using a combination of keyword searches and discourse analysis. We then charted our results, which are presented below in the appendix. The table below (Table X) provides a list of the frameworks with a corresponding number for easy reference.

No	Title	Author	Year	Primary audience(s)	Main Focus
1	Investing in People: Sustaining Communities through Improved Business Practice	IFC	2000	IFC Client Companies (all sectors)	Community Development
2	Good Practice Note: Addressing the Social Dimensions of Private Sector Projects	IFC	2003	Private sector projects in developing countries	social assessment and social development
3	Minerals and Conflict: A toolkit for intervention	USAID	2004	General public and USAID officers	Conflict in mining sector
4	Conflict-Sensitive Business Practice: Guidance for Extractive Industries	International Alert	2005	Extractive Industry companies	conflict in mining sector
5	Negotiation and mediation techniques for natural resource management	FAO	2005	Practitioners working on natural resource management and rural livelihoods projects.	negotiation and mediation
6	Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets	IFC	2007	Companies: stakeholder management teams	stakeholder engagement
7	Participatory water monitoring: a guide for preventing and managing conflict	World Bank CAO	2008	Companies, communities, civil society orgs, governments	participatory water monitoring
8	A Guide to Designing and Implementing Grievance Mechanisms for Development Projects.	CAO	2008	Companies	grievance mechanisms
9	Addressing Grievances from Project-Affected Communities	IFC	2009	IFC Clients	grievance mechanisms
10	Human Rights in the Mining & Metals Industry: Handling and Resolving local concerns and grievances	ICMM	2009	Extractive industry companies	complaint procedures and mechanisms
11	Strategic Community Investment: A Good Practice Handbook for Companies Doing Business in Emerging Markets	IFC	2010	IFC Clients operating in emerging markets	Community Investment
12	Good Practice Note: Community Development Agreements	Center for Socially Responsible Mining	2011	Extractive Industry companies; governments, community bodies and civil society organizations	'Community Development Agreements
13	Community Development Toolkit	ICMM	2012		
14	Responsible Mining: A toolkit for the prevention and mediation of conflicts in the development of the mining sector	University of Eastern Finland	2012	Extractive industry companies, national and local governments, NGOs, local community and international bodies	conflict management related to mining
15	Mining Community Development Agreements Source Book	World Bank	2012	Developers	
16	Toolkit and Guidance for Prevention and Managing Land and Natural Resources Conflict: Extractive Industries and Conflict	EU and UN	2012	Policy makers and EU & UN practitioners	conflict prevention in extraction industries

17	Natural Resources and Conflict: A guide for mediation practitioners	UN DPA and UNEP	2015	mediation practitioners	conflict prevention and mediation related to natural resources
18	Preventing Conflict in resource-rich countries: extractive industries value chain as a framework for conflict prevention	EU, UN, and World Bank	2015	government, extractive industry companies and community	conflict in mining sector
19	Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector	OECD	2017	Extractive industry companies	stakeholder engagement
20	Guidebook for Conflict Management in mining industry of the Kyrgyz republic	Eurasia Foundation and Kalikova & Associates	2017	Companies, investors, state and local authorities, and international agencies	Conflict in mining sector
21	Role of host governments in enabling or preventing conflict associated with mining	CIRDI	2018	Governments	conflict in mining sector

4. Review of frameworks

4.1 Overview of frameworks reviewed

The 21 documents we surveyed were published between 2000 and 2018. We will refer to these documents by numbers which correspond to the document titles on Table X. The frameworks came from a variety of sources: international lending organizations (e.g. IFC); industry groups (e.g. International Council on Mining and Metals); academia (e.g. University of Eastern Finland); national government development groups (e.g. United States Agency for International Development or Canadian International Resources and Development Institute); international organizations (e.g. United Nations); NGOs (e.g. International Alert), and private authors. Among these, the documents self-described in a variety of ways: our survey included “toolkits”, “good practice notes”, “guides”, “handbooks”, “guidance”, “sourcebooks”, “advisory notes”, and various permutations thereof. It is notable that nine of the documents (**No. 1, 2, 6, 7, 8, 9, 11, 15, 18**) were authored by the IFC, World Bank or CAO and tailored towards client companies. Only seven (**No. 3, 4, 13, 16, 18, 20, 21**) out of twenty-one documents were explicitly focused on conflict related to extractive industries. The remaining documents were focused on themes such as stakeholder engagement, community investment, mediation and complaint procedures, and monitoring, but each referenced conflict prevention as a key reason to use the prescribed set of guidance or tool.

~~The surveyed frameworks showed a high rate of mutual reference. On average, each framework referenced four (this will change slightly once we find *Getting it Right*) of the other 20 documents. For a network visualization of framework cross-referencing, see supplemental information.~~

Our findings revealed several trends in the assessed frameworks which we discuss in detail in the sub-sections that follow. In summary, all of our surveyed frameworks were global in their scope with the exception of a guidebook for conflict management in mining in Kyrgyzstan. The frameworks largely targeted companies as the primary audience, while several were tailored for mediation practitioners or government specifically. Community bodies and civil society organizations were identified by a number of publications as relevant, but not central, audiences (see Table X). The majority of the frameworks referenced examples to illustrate global cases, but the depth of case study engagement varied with a minority grounded in extended examples. Each publication which was focused explicitly on conflict related to the extractive industries included detailed overviews of causes of conflict, including examples of the emergence and resolution of specific conflict scenarios. Each emphasized the importance of assessing root causes of conflict and stakeholder participation in resolution processes.

Our survey found a wide variety of stakeholder engagement tools specifically proposed, such as community mapping, financial valuation procedures, social baseline studies, and monitoring strategies. The majority of tools presented were geared towards assessment and review, either through desk-based methodologies or through participatory methods. Many of the documents suggested best practices for community engagement and meaningful relationship building, but several did not.

4.2 Tools proposed

The documents analyzed fall into three broad thematic categories: stakeholder engagement, community development, and conflict prevention and mediation. Despite these differences in thematic focus, each of the documents provided guidance or tools for companies to assess the

context they are working in and devise strategies to engage with external stakeholders. Many of the documents offer a menu of options and encourage practitioners to pursue adaptive and improvisatory strategies suited to the specific contexts of the development. The IFC's publication, **11**, features an entire chapter titled "Assess the Local Context for CI [Community Investment]," which opens by stating that "Once a company has defined its business case, [etc.]... the next step is to understand the local 'ecosystem'" (International Finance Corporation, 2010: 25). The 2008 document, **7**, similarly includes a "social, geographical/physical, and institutional" (p. 20) context assessment. Additionally, the World Bank's **15** states that "this publication is not intended to be prescriptive, as the development of any CDA should consider the local context, including the applicable regulatory structure(s) specific community/stakeholder interests, values, concerns, and capacity" (2012: x). In many cases, principles such as the UN's Voluntary Principles on Security and Human Rights; the United Nations 1998 "Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters;" the OECD Guidelines for Multinational Enterprises; the Kimberly Certification Process; the Equator Principles; and IFC and MIGA's Policy and Performance Standards were referred to as foundational principles. Additionally, broader frameworks such as the conflict pathway analytical framework were core to documents such as **No. 21** (2018).

4.2.1 Assessment Tools

Assessment tools were the most frequently presented, and include the following: stakeholder mapping, social impact assessment/analysis; conflict assessment (also referred to as conflict risk assessment), root cause analysis, socio-economic surveys, assessment of current systems for handling complaints, integrated impact assessments, and assessing local context. Stakeholder analysis or mapping tools are the most widely prescribed, where stakeholder is often defined as "people or groups directly or indirectly affected by a project" (IFC 2010, **No. 11**). In most cases, stakeholder analysis is prescribed for company staff, consultants or practitioners in the industry, positioning these actors as the primary initiators or managers of relationships. For example, International Alert's (2005, p.2), **4**, is tailored to industry field managers and headquarters staff to "build capacity to understand existing or potential conflict and its actors, causes and consequences accurately; and to grasp fully the spectrum of influence that a company's investment may have on such conflict, directly, indirectly and at varying levels."

A similar theme is found in guidance documents focused more broadly on stakeholder engagement for IFC clients and companies, where conflict is positioned as an outcome of poor engagement strategies. The IFC's (2007, p. 7), **6**, "stakeholder relations can become politicized and complicated, and can lead to or exacerbate conflicts and other unanticipated outcomes. There is no easy formula for addressing these challenges, except to try to manage the process proactively and by adapting some of the established good practice approaches and principles described in this handbook to fit your own local context." Thus, a number of publications, while not explicitly about company-community conflict, included case study examples or references to the potential for conflict if effective relations are not developed with key stakeholders. Cases studies in this document included the Manila Water Company (Philippines), the Siberian-Urals Aluminium Company, the Peru Minera Yanacocha gold company, and many more.

Assessment tools are also positioned as a way to engage communities and ultimately prevent conflict. The EU-UN's 2012 toolkit (**16**) for preventing natural resource conflict writes that "assessment processes need to engage communities and stakeholders in a meaningful dialogue to address this conflict potential.... Where communities and stakeholders are alienated from the

assessment process the chances of conflict and persistent social pathology are vastly increased” (p. 15).

4.2.2 Engagement and Mediation Tools

Beyond assessment tools, a range of additional methods and actions were set out in the frameworks. These include the adoption of specific corporate policy or principles, participatory planning through community consultations, negotiations techniques, alternative conflict management methods, the design and implementation of grievance mechanisms, advice on transparent reporting and communication, and benefit sharing strategies. Five of the documents (6, 8, 9, 10, 13) are focused in particular on designing grievance mechanisms in early stages of projects, and one (17) presents tools for mediation and negotiation. The ICMM’s 2009 report (10) is focused on design principles for grievance mechanisms, providing guidance on approaches for receiving, registering and resolving complaints. The IFC’s 2009 good practice note, (9) presents the establishment of grievance mechanisms as an alternative to external dispute resolution processes and a way to “preempt rather than react to escalation of tensions with surrounding communities.” (pg.2)

Another frequently referenced mediation tool is community development agreements (CDAs), included in documents 12 and 15. These are negotiated agreements between developers and communities, usually set out in the earliest stages of a development project. They aim to prevent conflict from arising by airing and addressing concerns before tensions are inflamed and to ensure a degree of mutual understanding between stakeholders. Often, CDAs stipulate grievance mechanisms in the event of a disagreement. The World Bank’s 2012 source book (15) writes that “The implementation of grievance, feedback, and dispute management tools is a fundamental component of a successful CDA” (p. 48).

4.3 Implementation Timeframes: Anticipation and intervention

In all cases, early implementation of the tools was emphasized, including at pre-exploration phases and across the stages of the project cycle. This can especially be seen in the EU-UN’s (2015) framework (17), where each stage of a project is visually presented as step along a value chain, framing conflict as an event that occurs across a project lifecycle. The establishment of grievance mechanisms early in the development of projects is also emphasized in document 9, “Grievance mechanisms will respond to project needs better if they are established early as a measure to preempt rather than react to escalation of tensions with surrounding communities” (IFC 2009 p.2). Most notably, experts are recommending that the timeline for engaging communities with industry focus on the earliest possible opportunities for consultation. As the University of Eastern Finland, *Responsible Mining Toolkit* (2012) 14 states, “In all cases early and effective stakeholder engagement is a key to conflict prevention or minimization” (pg. 43). Additionally, emphasis is increasingly placed on opportunities for community organizing, training, and position articulation that occur during the “pre-negotiation stage” between local residents and developers (No 17, EU-UN, 2015). Toolkit 14 emphasizes the role of early-action processes as drivers of transformative change, if appropriately mainstreamed into all facets of industry practice. The toolkit states that “The application of these tools can reduce the potential for conflict at every stage of the process from feasibility studies to environmental impact assessments all the way through ongoing mining operations—when corporate social responsibility becomes a matter of routine management” (p. 14).

Academic observers have also noted how the industry is moving toward earlier intervention timelines. This may be due to numerous factors, including industry learning (as mediating conflict sooner is usually more cost-effective, Henisz et al., 2014), evolving CSR principles, and a changing climate around stakeholder engagement that emphasizes partnership with local communities (Loutit et al., 2016; O’Faircheallaigh, 2013).

4.4 The Social License and Consent

Most of the surveyed frameworks discussed some form of social licensing, or free, prior, and informed consent (FPIC), but only two (17 and 19) went so far as to recommend FPIC as a universal standard for development. All of the IFC publications advanced their proposed methods and tools as a way to achieve a social license to operate. For example, document 11 (IFC 2010) states that community investment is needed to "secure a license to operate, improve risk management, enhance brand value." (pg. 8) The CAO’s *Participatory water monitoring: a guide for preventing and managing conflict* identifies participatory water monitoring as a way to “enhance a company’s social license.” Additionally, the CAO’s 2008 (pg. 12), No. 7, “Just as a company must secure permits and licenses from local, regional, and national governments, it must secure a “social license” from the local and wider community to function as a legitimate and respected operator in their midst; presented as an integral part of achieving social license to operate.”

However, the “social license” is also a fickle term, widely adopted by industry perhaps for its relative lack of clarity on what social licensing actually constitutes in practice. As some academics have noted, “in many vitally important respects an SLO [social license to operate] is constituted by knowledge and meaning, rather than by legal documents and permits” (Rooney et al., 2014, p. 211). In this way, social licensing gives broad discretion to developers to undertake efforts aimed at achieving this license, but remain insulated from more stringent measures that might indict the degree to which stakeholders have given their blessing to a particular development.

The concept of free, prior, and informed consent (FPIC) is a notably different construct than social licensing. This is due in part to FPIC being enshrined in international law governing indigenous peoples (Greenspan, 2014; Kemp and Owen, 2013). But its adoption in infrastructure development in regions without clearly delineated indigenous populations exists on a purely voluntary basis. In five of the frameworks (4, 16, 17, 18, 19) we surveyed, FPIC made a passing appearance. In Framework 21, FPIC is mentioned as a tool to ensure and demonstrate that national authorities are engaging with local communities beyond those designated as indigenous. All of these frameworks add that FPIC is required for indigenous populations, but these documents rarely extend the recommendation that it be used as a broader standard, with the exception being document 20.

The predominance of “social licensing” serves as a foil to the relative absence of FPIC from conflict resolution frameworks. There may be several reasons underlying the resistance of industry to mainstream FPIC. First, “prior” consent draws a clear temporal boundary. A firm may be *in the process* of obtaining and maintaining the social license for an indefinite period of time, perhaps even during the entire lifetime of operations. Second, FPIC has traditionally invoked the power of the state to regulate non-compliant industry, whereas social licensing is usually seen as a set of bilateral arrangements (Prno and Slocombe, 2012). Third, “consent” is

usually understood as a concrete, demonstrable instrument. Lehr and Smith (Lehr and Smith, 2010, p. 8) write that “Consent is best understood as a formalized, documented, and verifiable social license to operate. It provides an additional, more formalized process in addition to the normal engagement processes that companies utilize.” In sum, social licensing enables a greater degree of self-determination for corporate actors, at the expense of local stakeholders whose definition of ‘social license’ may be based on completely different criteria, and assent may or may not have been formally conferred.

4.5 Stakeholder engagement and participation

The process of stakeholder identification was a key part of all of the documents analyzed. The ICMM *Community Development Toolkit* features one of the more exhaustive stakeholder identification guides, with the explicit aim of creating a “comprehensive list of people and groups who may be affected by, can affect or have an interest in [a] project” (International Council on Mining & Metals, 2012, p. 46).

Critically, many frameworks are careful to emphasize that “local stakeholder” are rarely monolithic (cf. Ballard and Banks, 2003). The IFC’s *Strategic Community Investment* (No. 11) (2010, p. 28), for instance, prescribes “a multi-stakeholder process that will engage and represent many different groups and sub-groups within the target population,” adding that “without specific measures to ensure their inclusion, the most vulnerable groups are typically excluded from, or underrepresented in, the development process.” This is echoed in several other frameworks, such as the ICMM’s *Community Development Toolkit* (2012, p. 45), which cautions against “assum[ing] that all members of a group or community are in one mind [*sic*] over a program or plan.” Other frameworks are less concerned with the politics of local stakeholders. For instance, the CAO (2008), 8, simply advises “locat[ing] key champions within the community who can help build support for the use of the system and address concerns” (p. 21), without noting, for example, that many members of a community may not be well represented from the outset, or that community champions may have divergent views on a project.

This heterogeneity in identifying local stakeholders (as complex, political organisms; or as more homogenous communities with leaders), reveals a varying degree of engagement with the realities of those most immediately affected by development. To further probe this line of questioning, we examined which frameworks specifically advised training or capacity-building for local stakeholders. The premise that stakeholders can, without organization or training, speak with a singular voice, suggests less engagement with the *politics* of affected communities.

We found that the majority of the surveyed documents (1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 21) prescribed capacity building, including training for stakeholders in communication, negotiation, and local organizing. In the documents focused on mediation and negotiation, training was emphasized as a key to a successful process. “Training can be an important aspect of the pre-negotiation phase, enabling stakeholders and increasing the chance of success” (UNDP, 2015, 17, p. 21), writes one report. The OECD’s (2017, p.55), 19, states that, “Provision of training may be necessary for stakeholders to adequately engage, for example when they are involved in complex negotiations or overseeing implementation of commitments. Training should be tailored to the context but may include training on financial literacy, environmental literacy, basic extraction processes, participatory methods, extractive project investment and development, or negotiation techniques.” This document has a three-page section

on “Providing the support and information necessary for stakeholders to adequately represent their perspectives and interests” (p. 52). These skills can facilitate the processes of articulating positions, building coalitions, and communicating negotiation stances—all political processes that are internal to local stakeholder groups.

We suggest a parallel between representing stakeholders as relatively monolithic groups and assuming that they can communicate preferences and positions without training in such measures. The degree to which documents engage stakeholders as dynamic political entities seems to be a distinguishing characteristic, and is one with important relevance for the ways in which would-be mediators represent local communities.

4.6 “*Managed*” versus “*negotiated*” outcomes and third-party brokers

This prevalence of stakeholder engagement procedures that produce *managed* outcomes rather than *negotiated* ones underpins claims that CSR has not been genuinely integrated into business models, but rather remains a largely rhetorical tool targeted for an audience of international shareholders (Hilson, 2006). This has led to calls for an “internal turn” (Kemp and Owen, 2013) in the industry. As mentioned in section 4.5, above, the documents surveyed here reflect the heterogeneity of expectations regarding stakeholder engagement.

We also note mixed guidance in the documents on building broader coalitions between groups such as NGOs, in-country universities, or other civil society groups that could effectively broker trust and facilitate communication and mediation. In an illustrative passage, the CAO’s “Guide to Designing and Implementing Grievance Mechanisms for Development Projects” suggests that third-party groups could be useful *after* the breakdown of bilateral talks: “[w]hen the parties are unable to reach decisions voluntarily, design teams should explore possible resources in the form of trusted local governmental and civil society institutions” (2008, p. 42). There are notable exceptions to this, such as the *Responsible Mining* toolkit, which states that “with their specialized knowledge and their access to officials, local NGOs have the credibility to act as a bridge between the community and the mining company, and may be especially helpful in assisting to educate locals and in moderating roundtable discussions” (2012: 14). Similarly, the ICMC *Community Development Toolkit* states that “The sustainability of community development activity demands effective partnerships between government, business and civil society” (2012: 63), and devotes several pages to the importance of building partnerships between local government, businesses, and civil society groups. These frameworks take a clear departure from the more common paradigm of bilateral negotiations that have become standard in emerging economies, instead encouraging a multilateral approach to conflict resolution.

The differing degrees to which frameworks exhort developers to build coalitions with government and civil society also seems to reflect different levels of faith in government to provide reliable assistance and leadership in rural environments in developing nations (Campbell, 2012). Above all, these various issues—securing the social license or consent, stakeholder identification, capacity building, partnering with local institutions—are closely linked insofar as each usually requires a good-faith act by the developer in transferring some degree of power to local stakeholders, thus making for a more deliberative development process. Certain frameworks (e.g. International Alert, 2005; International Finance Corporation, 2010) acknowledge this limited capacity and provide specific guidance to firms operating in regions with weak governance and civil society, aiming to prevent well-resourced developers from becoming engaged in “governance by default” (Owen and Kemp, 2015, p. 2015).

5. Discussion:

Whilst these frameworks present a range and diversity of approaches and engagement, they coalesce around a number of shared themes. Most documents exhibit a nuanced understanding of the causes of conflict and the role developers play in stakeholder disagreements at various stages of the project lifecycle. In the majority of frameworks reviewed, best practices in community engagement are clearly articulated and underpinned by wider principles. Nearly all documents emphasize the importance of tailoring actions to specific contexts, and a number of documents discuss design of measures across the life of the project.

This analysis yields a puzzle: if these frameworks are generally well-attuned to local contingencies and the geneses of conflict, why do developers continue to default to ad-hoc conflict resolution techniques (Davis and Franks, 2014; Franks et al., 2014)? We began this paper with four aims: i) to identify the dominant trends in existing frameworks that address conflict arising from the extractive industry and related infrastructural systems; ii) To identify the weaknesses and limitation of existing frameworks; iii) to assess opportunities for innovation that might increase the adoption of more effective conflict resolution strategies; and iv) to forecast how existing frameworks may need to adapt and respond to emerging global shifts in development investments. Having addressed the first and second aims, we now turn our attention to the latter two, with the overarching goal of understanding how these frameworks might better serve communities and developers.

The sum of these instruments is a wealth of resources that could guide industry toward better outcomes, but in practice become a bureaucratic exercise for corporations (Davis and Franks, 2014; Franks et al., 2014; Hodge, 2014). Similarities emerge with the “fairtrade” and “ethical minerals” agenda, which also lack clear criteria, and “designers and implementing bodies have found themselves in a position to devise their own definitions of ‘ethical’” (Hilson et al., 2016, p. 236-39). The onus on corporations to perform ‘stakeholder engagement,’ to commission social and environmental impact assessments and report their own ethical standards raises questions of accountability and oversight. Who has leverage to guide behaviors, and how might this leverage be exercised to realize better outcomes?

5.1. Opportunities for Innovation

While opportunities for innovation are numerous, we have chosen to focus on four in particular: 1) the creation of learning mechanisms for developers involved in numerous projects over time; 2) introducing frameworks that are accessible to a wide variety of stakeholders, rather than just developers; 3) focusing recommended interventions on non-managerial practices in an effort to avoid “managed” outcomes; and 4) developing region-specific protocols that attend to local contingencies.

5.1.1 Enabling Institutional Learning

A key issue in the existing landscape of developers and frameworks is the absence of institutional learning mechanisms that could promote better practices. Reflections on “lessons learned”—especially from the perspective of various stakeholders—and evaluation of strategies and approaches at key points in a project lifecycle would enhance the reflexivity of

industry practice and go some way toward preventing the replication of “business as usual” across different infrastructure projects. Institutions such as the IFC, ICMM, and the CAO communicate lessons learned to their client and member companies, but a vast number of companies which do not receive their lending are left out of these processes. In large infrastructural and extractive projects—sometimes called “lumpy assets” for their large and singular nature—such institutional learning is more elusive than in other, more iterative business environments. In order to counter this, dynamic tools and systems for learning should be integrated into conflict frameworks from the outset, with industry actors more engaged in reflexive processes.

Groups such as the ICMM are already showing leadership in this arena, with annual reports that outline developments in the mining industry including analysis of recent events (i.e. 2019 tailings dam failure in Brazil, ICMM 2018). But further scaffolds to institutional learning could form a crucial aid to overcoming the inertia of this sticky system. In some countries, this “learning” has been legislated, as in Peru, Australia, and the Philippines, which require firms to secure CDAs before they can proceed with infrastructure development (Buxton and Wilson, 2013). In other non-democratic and autocratic states, where autochthonous populations (not designated as indigenous) live, transmission of best practices and accountability mechanisms becomes more fraught.

5.1.2 Accessibility to a range of stakeholders

A second issue in the landscape of existing documents centers on the accessibility of these frameworks to a variety of stakeholders. Issues abound regarding where and how frameworks are published and made available, through what media, in what languages and with what degree of technical jargon. As it currently stands, most frameworks are targeted at industry, development practitioners or professional mediators, which poses an obstacle to local stakeholders seeking guidance for initiating community-developer dialogue. This poses a significant opportunity for innovation: frameworks that can empower local stakeholders to be more active at the leading edge of conflict mediation or community development agreements. Such documents would be widely translated, written in non-technical prose, and focus on connecting affected communities with capacity-building resources that would increase the likelihood of successful negotiations, and thereby avoid conflict. Again, in non-democratic contexts, stakeholder engagement may be perceived by host governments as dangerously political. In this way, treating stakeholder engagement as a technical solution is inherently problematic, as impact to local social and environmental contexts involve political, not only economic consequences and should be met with a political response (i.e. involvement in decision making). Kemp et al (2011) make this point on their research on concepts of justice and company-community conflict.

Importantly, such bilateral engagement is not without precedent. Many developed nations with frequent resource conflict between different constituencies have developed sophisticated frameworks for mediating disputes, often because such mediation is legally mandated. In Australia, for instance, “legislation provides for recognition of Aboriginal ownership of land and mandates that mineral development cannot proceed in the absence of agreement between Aboriginal landowners and developers” (O’Faircheallaigh and Corbett, 2005, p. 634). [Fixme: Aus framework needed]. On the opposite side of the planet, First Nations Canadians frequently come into conflict with resource developers. To help mediate these conflicts, the Ontario-based Gordon Foundation commissioned a toolkit specifically aimed at empowering Aboriginal communities to effectively negotiate with developers, “designed for communities engaged in

negotiating these agreements with mining companies. [The toolkit] is written for community negotiators, members of community negotiating teams, and consultants working with Aboriginal communities and organizations” (Gibson and O’Faircheallaigh, 2015, p. 10). With sections like “Information is Power,” “A Focus on Process as Well as Outcomes,” and “The Importance of Forming Networks,” the toolkit nearly mirrors our analysis of industry-targeted frameworks but specifically addresses local stakeholders. Documents like this should serve to lighthouse future innovations for those seeking to create a more accessible literature for affected communities.

5.1.3 *The importance of community-led processes*

Thirdly, we note that documents written for industry actors emphasize industry action. Although many of the frameworks acknowledge structural, contextual, institutional and other factors which may contribute to conflict, the documents often focus on management (i.e. processes and technical approaches). While several frameworks refer to the importance of getting buy-in and agreement at the highest level of corporate control, there is scant detail on who should lead company-community relations from within companies and how this might change depending on the size and types of company. While sub-contractor companies are mentioned as stakeholders, it is unclear how sub-contracting companies may participate in company strategies for relationship building with communities.

These findings may support the criticism that CSR efforts engage local communities in superficial ways that do not yield genuinely bilateral negotiations (Murguía and Böhring, 2013). What results instead, critics assert, is a tightly controlled, top-down process that is more appropriately characterized as *consultation*, without giving communities genuine political power in the negotiating sphere (Reed, 2008). One in-depth survey of six mining operations across the world found that none encouraged bilateralism in designing conflict resolution mechanisms (Kemp et al., 2011). This sort of corporate behavior is facilitated in part by industry and regulatory rhetoric that “essentially encourage[s] developers to formulate a management plan, rather than an agreement with impacted stakeholders” (Owen and Kemp, 2015, pg. 480). Another factor in these managerial mediation tactics may be industry’s reluctance to yield power or control to local stakeholders (Kemp et al., 2011); academics studying mining management culture have noted that “corporate willingness to surrender power is in short supply” (Kemp 2010, p. 210). This problematic, also framed as “community-led” versus “corporate-controlled” development (Maconachie and Hilson, 2013), offers an important lens for future innovations in community-developer relationships.

There is little doubt that industry favors *management* and *assessment* plans in part because they require a minimal surrender of control. By contrast, instruments such as CDAs necessarily involve some concession of power to local stakeholders. In this way, a new generation of frameworks targeting community-led action or jointly-authored plans and protocols could pave the way for more balance in multi-stakeholder negotiations. Such documents would also provide scaffolding for developers to help communities self-organize (i.e. capacity building and training), rather than leaving local stakeholders to respond *ad-hoc* to developer initiatives.

5.1.4 *Developing region-specific protocols*

Lastly, the frameworks surveyed here routinely refer to the importance of adapting agreements and strategies to local contexts; yet many exhibit a distinct lack of region-specific protocols that could inform more nuanced application of geographical contingencies. This mirrors a general

tendency on the part of infrastructure developers to overlook the complexities of the socio-ecological systems in which they are operating (Jenkins, 2004). This “blinkerredness” (Gilberthorpe and Banks, 2012) can lead to corporate strategies that are incompatible with community structures, political paradigms, or other contingencies, creating problems that might otherwise have been avoided. These problems have led to calls for developing protocols that are regionally- or locally-specific (Salman et al., 2018; Yakovleva et al., 2017), yet our survey found only one framework that was tailored to a particular region. Despite this issue, nearly all of the frameworks drew from specific case study examples across the world.

The lack of regionally-specific structures may partly result from the perception of commonalities in infrastructure conflicts. Across the world, these conflict tend to follow a similar trajectory and often involve many of the same themes, such as issues of water contamination or displacement of local residents (Fraser, 2018; Owen and Kemp, 2015; Thomashausen et al., 2018). Additionally, development organizations are often global in their focus and hesitant to produce regionally-constrained documents. Yet the global nature of many existing frameworks may generate skepticism among local communities and developers alike, who tend to see specificity in their own situations. A globally-focused framework may carry less weight with a given developer than one tailored to the particularities of a given region. In light of this, creating regionally-specific frameworks could help catalyze adoption among developers who feel that a given document needs minimal “interpreting” in light of local specifics.

We are careful to emphasize that, although opportunities for innovation clearly exist, already-published frameworks are an improvement on prior conditions. A hopeful reading would see them as works-in-progress that may evolve into mainstreamed mediation efforts and conflict resolution that empower local communities and improve efficiency and project reliability for developers. This becomes both pertinent and rational as the expansion of infrastructure financed outside traditional Western systems and corporations (see BRI, below) comprises an ever-larger portion of mega-projects in the developing world context. The dearth of frameworks emerging from China, India and beyond suggests a major gap where conflict issues are unlikely to be efficiently and equitably addressed at a community and non-government scale.

We also note that the persistence of infrastructural conflict is not necessarily an indictment of a stagnant industry. Murguía and Böhlting (2013) have argued that CSR discourses may exacerbate conflict; by contrast, Bebbington (2014, p. 34) takes a more sanguine view that conflict may emerge from the exercise of new-found legitimacy. In this light, community-developer tensions are not necessarily undesirable: “While improved [developer] performance might dissipate conflict,” he writes, “it may also lead communities and other concerned populations to continue demanding better and better performance in much the same way that consumers keep demanding better and better products.” In this sense, conflict may be the growing pains of a changing industry rather than the aches of a stagnant one. In either event, learning from current framework shortcomings, updating thought and design, and including a broader range of civic perspectives would likely improve outcomes and strengthen efficacy.

5.2. Emerging trends in the global infrastructure landscape

The frameworks identified and analyzed in this paper are premised in part upon an infrastructure industry that is more or less “on board” with CSR and broader discourses of good governance, human rights and the minimization of environmental impact. These discourses have underpinned international law as well as non-binding standards and guidelines promoted by international

organizations in recent decades. The Western provenance—and by extension, contingency— of these discourses is now coming to the fore with the rapid expansion of Chinese infrastructure development. Various called the New Silk Road; One Belt, One Road (OBOR); or the Belt and Road Initiative (BRI), the global expansion of Chinese infrastructure development has become an icon of contemporary economic-geographic changes. This purported \$1 trillion USD investment package also presents a relatively new set of challenges for the resolution of infrastructure-related conflict. Chinese firms, accustomed to operating in an authoritarian political climate, have not been subject to the same pressures that have led to the mainstreaming of CSR elsewhere in the world over the past several decades. In a telling illustration, a 2017 UNDP survey found that, of 483 Chinese companies engaged in overseas development, a majority do not publish any sort of CSR or sustainability report regarding their international projects. Rather, only 6% of surveyed firms published a yearly country report regarding their projects (Li et al., 2017). This relative lack of transparency or stakeholder engagement will likely present new challenges as a different corporate culture takes on progressively greater presence in developing nations, perhaps even becoming hegemonic among 21st Century infrastructure development.

This alternative corporate culture evolved alongside the strong role of the state in Chinese infrastructure development. In China, the government often takes on a crucial role in deftly mitigating stakeholder conflict—outright coercion of local residents is not usually a first resort. Consistent with the public sector’s ubiquity in daily life, “local governments in mining areas proactively intervene and serve as a buffer zone between the mining sector and the citizens,” (Zhan and Ming, 2017: 499). To this end, government officials intentionally avoid situations in which communities and firms engage in the sort of bilateral talks that have become standard practice in much of the developing world. From the government perspective, this government-driven mediation is an effective and low-cost mechanism to preserve “social stability” (Zhuang and Chen, 2015). Indeed, researchers have documented that giving financial compensation to local residents is an often-used conflict resolution mechanism in China, sometimes mandated by local government despite a firm’s protest (Zhan and Ming, 2017). Crucially, the government’s primary aim as an arbiter is to mitigate social unrest—the developer’s profit margin is of secondary importance. The resulting system allows a firm to pursue its own interests whilst the state maintains a check on the social instability it might cause. The tradition of corporate self-regulation that became *de rigueur* with the advent of CSR is relatively absent in the Chinese context.

There are clear problems on the horizon as this corporate culture is translated into societies where local and national governments are either absent or relatively responsive to corruption. In some post-Soviet societies, for instance, the state was largely perceived to have simply evaporated in the wake of Communist collapse, leaving behind a cultural, regulatory, and even spiritual void (Pedersen, 2011). In such societies, local governments may be able to serve as negotiating partners, but can rarely exert the authority necessary to broker deals and extract concessions from profit-driven enterprises. Absent a successful mediation strategy, conflict can swiftly escalate.

6. Conclusion .

We began this paper with four aims. First, we identified the dominant trends in existing frameworks and found numerous commonalities in a body of work engaged in an ongoing discussion how to improve practices. Second, we identified the weaknesses and limitations of existing frameworks. We then assessed opportunities for innovation, which are detailed above. Lastly, we considered how existing frameworks might adapt and respond to a rapidly changing landscape of global infrastructure and resource development.

Our analysis shows how norms relating to stakeholder engagement and community consultation are changing. Although the landscape of corporate accountability is improving, industry norms remain dominated by *ad hoc* and company-managed community engagement to prevent conflict. While the frameworks analyzed here play a role in this improvement, they have not been employed at scale or consistently across the industry. The frameworks focus largely on assessment and stakeholder engagement. Our analysis highlights four opportunities for improving existing frameworks: 1) creating learning mechanisms for developers involved in numerous projects; 2) introducing frameworks that are accessible to a wide variety of stakeholders to promote multilateral engagement; 3) focusing recommended interventions on non-managerial practices in an effort to avoid “managed” outcomes; and 4) developing region-specific protocols that attend to local contingencies and gain purchase with key local actors. We see a particular role for this final opportunity, especially in regions with intertwined social, environmental, and economic realities.

Future research is still needed. This review article intends to provide a comprehensive overview of an underexamined sector. This area of study—and the industry as a whole—will benefit from future scholarship that examines innovation and conflict mediation occurring *in media res*. Developers are notoriously resistant to being observed by outsiders (Kemp et al., 2011), but a better understanding of what levers promote proactive stakeholder engagement is critical to driving change. While the frameworks analyzed here will likely continue to play a role in future industry progress, the multiple dimensions of community-developer conflict require multiple approaches for advancing equitable outcomes.

References:

- Addison, T., Roe, A., 2018. Extractives for Development, in: Addison, T., Roe, A. (Eds.), *Extractive Industries: The Management of Resources as a Driver of Sustainable Development*. Oxford University Press, Oxford, United Kingdom.
- Andrews, T., Elizalde, B., Billon, P.L., Oh, C.H., Reyes, D., Thomson, I., 2017. The Rise in Conflict Associated with Mining Operations: What Lies Beneath? Canadian International Resources and Development Institute.
- Azapagic, Adisa. "Developing a framework for sustainable development indicators for the mining and minerals industry." *Journal of cleaner production* 12.6 (2004): 639-662.
- Ballard, C., Banks, G., 2003. Resource Wars: The Anthropology of Mining. *Annual Review of Anthropology* 32, 287–313. <https://doi.org/10.1146/annurev.anthro.32.061002.093116>
- Bebbington, A., Bebbington, D.H., 2018. Mining, movements and sustainable development: Concepts for a framework. *Sustainable Development* 26, 441–449. <https://doi.org/10.1002/sd.1888>

- Bebbington, A., Humphreys Bebbington, D., 2018. Mining, movements and sustainable development: Concepts for a framework. *Sustainable Development* 26, 441–449. <https://doi.org/10.1002/sd.1888>
- Bebbington, A.J., 2014. Socio-environmental conflict: an opportunity for mining companies. *Journal of Cleaner Production* 84, 34. <https://doi.org/10.1016/j.jclepro.2014.08.108>
- Blowfield, M., Frynas, J.G., 2005. Setting New Agendas: Critical Perspectives on Corporate Social Responsibility in the Developing World. *International Affairs* 81, 499–513.
- Brooks, C., Oikonomou, I., 2018. The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. *The British Accounting Review* 50, 1–15. <https://doi.org/10.1016/j.bar.2017.11.005>
- Brown, M., Grzybowski, A., Jensen, D., Kaye, J., 2015. *Natural Resources and Conflict: A Guide for Mediation Practitioners*. UN Department of Political Affairs and UN Environment Programme.
- Buxton, A., Wilson, E., 2013. *FPIC and the extractive industries: A guide to applying the spirit of free, prior and informed consent in industrial projects*. International Institute for Environment and Development, London.
- Campbell, B., 2012. Corporate Social Responsibility and development in Africa: Redefining the roles and responsibilities of public and private actors in the mining sector. *Resources Policy* 37, 138–143. <https://doi.org/10.1016/j.resourpol.2011.05.002>
- Chatty, D., 1996. *Mobile pastoralists: development planning and social change in Oman*. Columbia University Press, New York.
- Compliance Advisor Ombudsman, n.d. CAO Cases [WWW Document]. URL <http://www.cao-ombudsman.org/cases/default.aspx> (accessed 6.5.19).
- Ćurković, M., Košec, A., 2018. Bubble effect: including internet search engines in systematic reviews introduces selection bias and impedes scientific reproducibility. *BMC Medical Research Methodology* 18. <https://doi.org/10.1186/s12874-018-0599-2>
- Davis, R., Franks, D., 2014. Costs of Company-Community Conflict in the Extractive Sector 56.
- Deutch, J., 2011. The Natural Gas Revolution and Its Consequences. *Foreign Affairs* 90, 82–93.
- Dougherty, M.L. 2019. Boom times for technocrats? How environmental consulting companies shape mining governance. *The Extractive Industries and Society* 6: 443–453.
- Edwards, S., 2017. How a group of Mongolian herders took on a mining giant — and won [WWW Document]. Devex. URL <https://www.devex.com/news/sponsored/how-a-group-of-mongolian-herders-took-on-a-mining-giant-and-won-90765> (accessed 6.29.19).
- Engels, B., Dietz, K. (Eds.), 2017. *Contested extractivism, society and the state: struggles over mining and land, Development, justice and citizenship*. Palgrave Macmillan imprint is published by Springer Nature, London.
- Franks, D.M., Davis, R., Bebbington, A.J., Ali, S.H., Kemp, D., Scurrah, M., 2014. Conflict translates environmental and social risk into business costs. *Proceedings of the National Academy of Sciences* 111, 7576–7581. <https://doi.org/10.1073/pnas.1405135111>
- Fraser, J., 2018. Mining companies and communities: Collaborative approaches to reduce social risk and advance sustainable development. *Resources Policy*. <https://doi.org/10.1016/j.resourpol.2018.02.003>
- Friedman, F., 1970. The Social Responsibility of Business Is to Increase Its Profits. *The New York Times Magazine* 32.
- Fukuda-Parr, S., Yamin, A.E., 2013. The Power of Numbers: A critical review of MDG targets for human development and human rights. *Development* 56, 58–65. <https://doi.org/10.1057/dev.2013.8>

- Gale, N.K., Heath, G., Cameron, E., Rashid, S., Redwood, S., 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology* 13, 117. <https://doi.org/10.1186/1471-2288-13-117>
- Gedicks, A., c1993. *The new resource wars : native and environmental struggles against multinational corporations /*. South End Press, Boston, MA :
- Gibson, G., O’Faircheallaigh, C., 2015. IBA Community Toolkit.
- Gilberthorpe, E., Banks, G., 2012. Development on whose terms?: CSR discourse and social realities in Papua New Guinea’s extractive industries sector. *Resources Policy* 37, 185–193. <https://doi.org/10.1016/j.resourpol.2011.09.005>
- Greenspan, E., 2014. Free, Prior, and Informed Consent in Africa: An emerging standard for extractive industry projects. *Oxfam America Research Backgrounder series* 59.
- Harvey, P., Jensen, C.B., Morita, A. (Eds.), 2016. *Infrastructures and Social Complexity: A Companion*, 1 edition. ed. Routledge, London ; New York.
- Helwege, A., 2015. Challenges with resolving mining conflicts in Latin America. *The Extractive Industries and Society* 2, 73–84. <https://doi.org/10.1016/j.exis.2014.10.003>
- Henisz, W.J., Dorobantu, S., Nartey, L.J., 2014. Spinning gold: The financial returns to stakeholder engagement: Financial Returns to Stakeholder Engagement. *Strategic Management Journal* 35, 1727–1748. <https://doi.org/10.1002/smj.2180>
- Hilson, G., 2006. Championing the Rhetoric? “Corporate Social Responsibility” in Ghana’s Mining Sector. *Greener Management International* 43–56.
- Hilson, G., 2002. An overview of land use conflicts in mining communities. *Land Use Policy* 19, 65–73. [https://doi.org/10.1016/S0264-8377\(01\)00043-6](https://doi.org/10.1016/S0264-8377(01)00043-6)
- Hilson, G., Hilson, A., McQuilken, J., 2016. Ethical minerals: Fairer trade for whom? *Resources Policy* 49, 232–247. <https://doi.org/10.1016/j.resourpol.2016.05.002>
- Hodge, R.A., 2014. Mining company performance and community conflict: moving beyond a seeming paradox. *Journal of Cleaner Production* 84, 27–33. <https://doi.org/10.1016/j.jclepro.2014.09.007>
- Hughes, G., 2012. *Responsible mining: A toolkit for the prevention and mediation of conflicts in the development of the mining sector*. University of Eastern Finland, Joensuu.
- International Alert (Organization), 2005. *Conflict-sensitive business practice: guidance for extractive industries*. International Alert, London [England].
- International Council on Mining & Metals, 2012. *Community Development Toolkit*. International Council on Mining & Metals, London.
- International Council on Mining & Metals, 2018. *Mining with Principles*. ICMM, London.
- International Finance Corporation, 2012. *IFC Performance Standards on Environmental and Social Sustainability*. World Bank Group, Washington, D.C.
- International Finance Corporation, 2010. *Strategic Community Investment: A Good Practice Handbook for Companies Doing Business in Emerging Markets*. World Bank. <https://doi.org/10.1596/27842>
- International Finance Corporation, 2007. *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets*. International Finance Corporation, Washington, D.C.
- International Finance Corporation, 2003. *Good Practice Note: Addressing the Social Dimensions of Private Sector Projects*. Washington, D.C.
- International Finance Corporation (Ed.), 2000. *Investing in people: sustaining communities through improved business practice: a community development resource guide for companies*. International Finance Corporation, Washington, DC.

- Jenkins, H., 2004. Corporate social responsibility and the mining industry: conflicts and constructs. *Corporate Social Responsibility and Environmental Management* 11, 23–34. <https://doi.org/10.1002/csr.50>
- Kemp, D., 2010. Mining and community development: problems and possibilities of local-level practice. *Community Development Journal* 45, 198–218. <https://doi.org/10.1093/cdj/bsp006>
- Kemp, D., Owen, J.R., 2013. Community relations and mining: Core to business but not “core business.” *Resources Policy* 38, 523–531. <https://doi.org/10.1016/j.resourpol.2013.08.003>
- Kemp, D., Owen, J.R., Gotzmann, N., Bond, C.J., 2011. Just Relations and Company–Community Conflict in Mining. *Journal of Business Ethics* 101, 93–109. <https://doi.org/10.1007/s10551-010-0711-y>
- Lamb, V., Marschke, M., Rigg, J., 2019. Trading Sand, Undermining Lives: Omitted Livelihoods in the Global Trade in Sand. *Annals of the American Association of Geographers* 1–18. <https://doi.org/10.1080/24694452.2018.1541401>
- Lehr, A., Smith, G., 2010. implementing a Corporate Free, Prior, and Informed Consent Policy: Benefits and Challenges. *Foley Hoag*.
- Li, Z., Zhang, J., Wang, Y., 2017. Report on the Sustainable Development of Chinese Enterprises Overseas. United Nations Development Programme China, Beijing.
- Loutit, J., Mandelbaum, J., Szoke-Burke, S., 2016. Emerging practices in community development agreements. *Journal of Sustainable Development Law and Policy (The)* 7, 64. <https://doi.org/10.4314/jsdlp.v7i1.4>
- Lyall, A., Valdivia, G., 2019. The Speculative Petro-State: Volatile Oil Prices and Resource Populism in Ecuador. *Annals of the American Association of Geographers* 109, 349–360. <https://doi.org/10.1080/24694452.2018.1531690>
- Maconachie, R., Hilson, G., 2013. Editorial introduction: the extractive industries, community development and livelihood change in developing countries. *Community Development Journal* 48, 347–359. <https://doi.org/10.1093/cdj/bst018>
- Mahood, Q., Van Eerd, D., Irvin, E., 2014. Searching for grey literature for systematic reviews: challenges and benefits: MAHOOD *ET AL* . *Research Synthesis Methods* 5, 221–234. <https://doi.org/10.1002/jrsm.1106>
- Meesters, M.E., Behagel, J.H., 2017. The Social Licence to Operate: Ambiguities and the neutralization of harm in Mongolia. *Resources Policy* 53, 274–282. <https://doi.org/10.1016/j.resourpol.2017.07.006>
- Miranda, M., Chambers, D., Coumans, C., 2005. Framework for Responsible Mining: a guide to evolving standards.
- Moomen, A., 2017. Strategies for managing large-scale mining sector land use conflicts in the global south. *Resources Policy* 51, 85–93. <https://doi.org/10.1016/j.resourpol.2016.11.010>
- Mudd, D.G.M., 2004. Sustainable Mining : An Evaluation of Changing Ore Grades and Waste Volumes. *New Zealand* 13.
- Murguía, D.I., Böhlting, K., 2013. Sustainability reporting on large-scale mining conflicts: the case of Bajo de la Alumbrera, Argentina. *Journal of Cleaner Production* 41, 202–209. <https://doi.org/10.1016/j.jclepro.2012.10.012>
- O’Faircheallaigh, C., 2013. Community development agreements in the mining industry: an emerging global phenomenon. *Community Development* 44, 222–238. <https://doi.org/10.1080/15575330.2012.705872>

- O'Faircheallaigh, C., Corbett, T., 2005. Indigenous participation in environmental management of mining projects: The role of negotiated agreements. *Environmental Politics* 14, 629–647. <https://doi.org/10.1080/09644010500257912>
- Owen, J.R., Kemp, D., 2015. Mining-induced displacement and resettlement: a critical appraisal. *Journal of Cleaner Production* 87, 478–488. <https://doi.org/10.1016/j.jclepro.2014.09.087>
- Owen, J.R., Kemp, D., 2014. 'Free prior and informed consent', social complexity and the mining industry: Establishing a knowledge base. *Resources Policy* 41, 91–100. <https://doi.org/10.1016/j.resourpol.2014.03.006>
- Paez, A., 2017. Gray literature: An important resource in systematic reviews: PAEZ. *Journal of Evidence-Based Medicine* 10, 233–240. <https://doi.org/10.1111/jebm.12266>
- Parkinson, S., Eatough, V., Holmes, J., Stapley, E., Midgley, N., 2016. Framework analysis: a worked example of a study exploring young people's experiences of depression. *Qualitative Research in Psychology* 13, 109–129. <https://doi.org/10.1080/14780887.2015.1119228>
- Pedersen, M.A., 2011. *Not Quite Shamans: Spirit Worlds and Political Lives in Northern Mongolia, Culture and Society after Socialism*. Cornell University Press, Ithaca, NY.
- Porter, T.M. (Mike), 2016. The geology, structure and mineralisation of the Oyu Tolgoi porphyry copper-gold-molybdenum deposits, Mongolia: A review. *Geoscience Frontiers, Special Issue: Giant Mineral Deposits* 7, 375–407. <https://doi.org/10.1016/j.gsf.2015.08.003>
- Prno, J., Slocombe, D.S., 2012. Exploring the origins of 'social license to operate' in the mining sector: Perspectives from governance and sustainability theories. *Resources Policy* 37, 346–357. <https://doi.org/10.1016/j.resourpol.2012.04.002>
- Ratner, B., Burnley, C., Mugisha, S., Madzudzo, E., Oeur, I., Mam, K., Rüttinger, L., Chilufya, L., Adriázola, P., 2018. Investing in multi-stakeholder dialogue to address natural resource competition and conflict. *Development in Practice* 28, 799–812. <https://doi.org/10.1080/09614524.2018.1478950>
- Reed, M.S., 2008. Stakeholder participation for environmental management: A literature review. *Biological Conservation* 141, 2417–2431. <https://doi.org/10.1016/j.biocon.2008.07.014>
- Ritchie, J., Lewis, J. (Eds.), 2003. *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, First edition. ed. SAGE Publications Ltd, Los Angeles, Calif.
- Rooney, D., Leach, J., Ashworth, P., 2014. Doing the Social in Social License. *Social Epistemology* 28, 209–218. <https://doi.org/10.1080/02691728.2014.922644>
- Russell, A.F.S., 2011. Incorporating social rights in development: transnational corporations and the right to water. *International Journal of Law in Context* 7, 1–30. <https://doi.org/10.1017/S1744552310000388>
- Sachs, J.D., Warner, A.M., 2001. The curse of natural resources. *European Economic Review, 15th Annual Congress of the European Economic Association* 45, 827–838. [https://doi.org/10.1016/S0014-2921\(01\)00125-8](https://doi.org/10.1016/S0014-2921(01)00125-8)
- Salman, T., de Theije, M., Vélez-Torres, I., 2018. Structures, actors, and interactions in the analysis of natural resource conflicts. *Ecology and Society* 23. <https://doi.org/10.5751/ES-10221-230330>
- Sarkar, S., Gow-Smith, A., Morakinyo, T., Frau, R., Kuniholm, M., 2010. *Mining Community Development Agreements: Practical Experiences and Field Studies*. World Bank and Environmental Resources Management, Washington, D.C.
- Savage, P., Geissdoerfer, M., Kharrazi, A., Evans, S., 2019. The theoretical foundations of sociotechnical systems change for sustainability: A systematic literature review. *Journal of Cleaner Production* 206, 878–892. <https://doi.org/10.1016/j.jclepro.2018.09.208>

- Slovic, P., 1987. Perception of Risk. *Science* 236, 280. <https://doi.org/10.1126/science.3563507>
- Thacker, S., Adshead, D., Fay, M., Hallegatte, S., Harvey, M., Meller, H., O'Regan, N., Rozenberg, J., Watkins, G., Hall, J.W., 2019. Infrastructure for sustainable development. *Nature Sustainability* 2, 324–331. <https://doi.org/10.1038/s41893-019-0256-8>
- Thomashausen, S., Maennling, N., Mebratu-Tsegaye, T., 2018. A comparative overview of legal frameworks governing water use and waste water discharge in the mining sector. *Resources Policy* 55, 143–151. <https://doi.org/10.1016/j.resourpol.2017.11.012>
- United Nations High Commissioner on Refugees, 2004. Guiding Principles on Internal Displacement.
- Van Alstine, J., Afionis, S., 2013. Community and company capacity: the challenge of resource-led development in Zambia's "New Copperbelt." *Community Development Journal* 48, 360–376. <https://doi.org/10.1093/cdj/bst019>
- Weszkalnys, G., 2015. GEOLOGY, POTENTIALITY, SPECULATION: On the Indeterminacy of First Oil. *Cultural Anthropology* 30, 611–639. <https://doi.org/10.14506/ca30.4.08>
- Wohlin, C., 2014. Guidelines for snowballing in systematic literature studies and a replication in software engineering, in: In 8th International Conference on Evaluation and Assessment in Software Engineering (EASE 2014). ACM, pp. 321–330.
- World Bank, 2018. Brief: Infrastructure Finance. World Bank. URL <http://www.worldbank.org/en/topic/financialsector/brief/infrastructure-finance> (accessed 6.5.19).
- World Bank, 2012. Mining Community Development Agreements Source Book. World Bank, Washington, D.C.
- Wright, C. 2012. Global banks, the environment and human rights: The impact of the Equator Principles on Lending Policies and Practices. *Global Environmental Politics* 12(1): 56-77
- Yakovleva, N., Kotilainen, J., Toivakka, M., 2017. Reflections on the opportunities for mining companies to contribute to the United Nations Sustainable Development Goals in sub-Saharan Africa. *The Extractive Industries and Society* 4, 426–433. <https://doi.org/10.1016/j.exis.2017.06.010>
- Zhan, J.V., Ming, Z., 2017. Resource Conflict Resolution in China. *The China Quarterly* 230, 489–511. <https://doi.org/10.1017/S030574101700056X>
- Zhuang, W., Chen, F., 2015. "Mediate First": The Revival of Mediation in Labour Dispute Resolution in China. *The China Quarterly* 222, 380–402. <https://doi.org/10.1017/S0305741015000739>

Susskind, L., Field, P. and G. Smith. 2017. In M. Matsuura and T. Schenk (eds). Joint Fact Finding: Process and Practice. In *Joint Fact-Finding in Urban Planning and Environmental Disputes*. Routledge

An example of the latter is the International Council on Mining Metal's *Community Development Toolkit* that "presents a set of 20 tools intended for use throughout the mining project cycle and that cover a range of community development approaches under the headings of relationships, planning, assessment, management, and monitoring and evaluation" (Kemp, 2010). This framework, which covers pre-construction consultation and post-closure, stands in contrast to those that attempt to manage conflict *in media res*.

Defining positive outcomes that can translate within the mining sector and across geographies requires eschewing local particulars and simplifying goals (worth mentioning the CAO at some point in relation to the IFC). For instance, the IFC Performance Standards give developers a particularly wide berth with regards to managing conflict. Standard 1 stipulates that developers design a "grievance mechanism" that

should be scaled to the risks and adverse impacts of the project and have Affected Communities as its primary user. It should seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern. (2012: 9)

This formulation of a grievance mechanism raises questions as to how project risks are to be quantified: Lost local economic productivity? The price of resettlement? And what constitutes a "resolved" concern? If community leaders are placated with bribes, might that meet the standards described above? This necessary vagueness has been the subject of scholarly criticism of global development frameworks such as the UN Millennium Development Goals (Fukuda-Parr and Yamin, 2013). The concern is that this lack of detail leaves much of the implementation process to the goodwill of developers. By contrast, process-oriented frameworks, by declining to articulate desirable outcomes, tend to be more conformable to local particulars. .

For bilateral negotiations to take place, affected communities often need to become well versed in legal frameworks, relevant environmental science, and negotiation protocols (Loutit et al., 2016). While resource- and time-intensive, these processes are critical for communities to build coherent and well-articulated negotiating positions.

Reinsert: The presence of Free, Prior, and Informed Consent (FPIC) appeared in some form in many frameworks, but only two (*Natural Resources and Conflict* and *Due Diligence Guidance for Meaningful Stakeholder Engagement*) recommended it as a principle for all development—the rest either limited it to projects affecting indigenous peoples or suggested a lesser standard than FPIC.

As the timeline for stakeholder engagement moves progressively earlier, increasing attention is paid to the importance of building capacity with local communities, to ensure that they are able to articulate their negotiating position and build consensus within the group of potentially affected people

. Of those frameworks that specifically aim to preempt conflict, many are not cast as mediation strategies *per se*, but rather as "stakeholder engagement" more broadly. For example, *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets*, explains to its industry audience that "Engaging with stakeholders from the start—as part of your core business strategy—enables a proactive cultivation of relationships that can serve as 'capital' during challenging times" (International Finance Corporation, 2007: 6).

Four challenges arise in using frameworks to encourage change and reduce conflict. These are incentivizing streamlined and proactive use of mediation strategies at early stages; to meaningfully address the root causes of infrastructure conflict; to break the pattern of reproducing the shortfalls of past, externally-imposed agendas; and to engage local stakeholders as genuine partners in the conflict mediation process