IMPLICATIONS OF CHINESE OVERSEAS MINING OPERATIONS FOR COMMUNITY-LEVEL SOCIAL CONFLICTS

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ABSTRACT

IMPLICATIONS OF CHINESE OVERSEAS MINING OPERATIONS FOR COMMUNITY-LEVEL SOCIAL CONFLICTS

YU CAO

In the context of increasing foreign mining activities and their impacts, and the growing number of social conflicts resulting from mining operations, this dissertation investigates whether Chinese multinational corporation (MNC) investment is positively associated with social conflict, and if so, whether that relationship is a result of MNC practices, and/or other factors. Broadly speaking, scholars paint a picture in which China's political regime together with its national culture and its economic development path influence Chinese extractive MNCs' activities abroad and might contribute to more social conflict. At the same time, scholars writing on extractive conflicts have argued that conflicts result from companies' inadequate performances, especially regarding community engagement practices. That is, in this second view, social conflict is due to mistakes that *any* company could make; that is, there is no "Chinese way" of operating abroad. The dissertation thus engages the following research questions: How do Chinese firms affect socio-environmental conflict around extraction? Why? To what extent do firm practices explain variation in conflict? Through quantitative and Geographical Information System (GIS) analysis and comparative case studies, this dissertation finds that firms with better social responsibility performance generate less conflict and Chinese firms do not confront more conflict than other foreign-owned firms. This finding has theoretical contributions as the results that Chinese mining MNCs do not perform worse threaten to falsify much of what has been discussed about Chinese mining firms, that they behave worse and cause conflict. Given the prominence of Chinese firms in mining globally, the study's focus on Chinese MNC mining projects contributes to our understanding of

extractive conflict, with implications for the trajectory of extractive sectors and, in turn, alternative or sustainable development options.

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Chapter 1 Introduction

This dissertation explains mining conflicts through analysis of Chinese and non-Chinese mining projects. The research question is: Are Chinese operations more prone to local socio-environmental conflicts than non-Chinese operations? If so, why? To what extent do firm practices explain variations in conflict? The study finds that firms with better social responsibility performance generate less conflict, and Chinese firms do not confront more conflict than other foreign-owned firms. These findings have theoretical contributions. The results that Chinese mining multinational corporations do not stand out for generating conflict runs counter to much of what has been discussed in the literature on Chinese mining practices.

1.1 Background: MNCs in the Extractive Industry

Globally, natural resource extraction has increased in the last several decades. Globalization facilitates trade, stimulates country-to-country cooperation, and contributes to the rise of multinational corporations (MNCs).[1] With their productive capacity, economic power, and financial resources, MNCs now dominate majo r sectors of the world economy.[2] According to the *World Investment Report 2020*, heavy-industry MNCs have been accumulating wealth world-wide. In 2021, Glencore PLC, an Anglo-Swiss commodity trading and mining multinational company, made U.S. $142.36 billion in revenue, and Rio Tinto, an Anglo-Australian firm and the world's second largest metals and mining multinational corporation,

[1] Transnational corporations (TNCs) and multinational corporations (MNCs) are corporations with operational facilities and other assets in at least one country other than their home country. John H. Dunning & Sarianna M. Lundan, Multinational Enterprises and the Global Economy (Edward Elgar Publishing, 2008), 5. The United Nations Commission on Transnational Corporations and Investment defined MNCs as "enterprises which own or control production or service facilities outside the country in which they are based" (John H. Dunning and Sarianna M. Lundan, *Multinational Enterprises and the Global Economy*, Edward Elgar Publishing, 2008, 5). This dissertation uses MNCs. Also MNCs are also called MNEs. This study treats them as the same.
[2] Christopher Oyier, "Multinational Corporations and Natural Resources Exploitation in Africa: Challenges and Prospects," Journalofcmsd 1, no. 2 (2017): 69-71.

U.S. $44.62 billion.[3] In general, MNCs affect local politics and local economies in various ways.

Over the past half century, trade in material resources has grown greatly. Fossil fuel and metal ores comprised approximately 75 percent of global physical trade.[4] Economic profits generated from natural resources can affect in significant way a country's development path, both politically and economically.[5] On the one hand, the possession and development of natural resources provide the opportunity for countries to grow economically and reduce the poverty rate.[6] Revenues generated from resource extraction provide income for communities and subnational governments to develop services and infrastructure and create jobs for residents. MNCs boost local economies and bring development opportunities for residents. Many extractive MNCs' investment also comes with support for local infrastructure.

But on the other hand, resource wealth also has caused inequality, political instability, economic and environmental degradation, and social unrest, consistent with predictions from the "resource curse" literature.[7] For instance, resource revenues can lead to government corruption when elites and companies take control of the rents. Natural resource development also has contributed to global inequality and climate change, especially with the presence of large foreign companies.[8] MNCs can generate environmental or social side effects.

[3] M. Garside, "2021 Global List of Leading Mining Companies Based on Revenue," *Statista*, October 20, 2022, https://www.statista.com/statistics/272707/ranking-of-top-10-mining-companies-based-on-revenue/.
[4] "Sustainable Trade in Resources: Global Material Flows, Circularity and Trade," *UN environment programme*, accessed October 11, 2022, https://www.resourcepanel.org/reports/sustainable-trade-resources.
[5] Moisés Arce, *Resource extraction and protest in Peru*, University of Pittsburgh Press, 2014, xiii.
[6] "Extractive Industries," *The World Bank*, accessed October 11, 2022, https://www.worldbank.org/en/topic/extractiveindustries/overview#1.
[7] Michael L. Ross, "The Political Economy of the Resource Curse," *World Politics* 51, no. 2 (1999): 297–322.
[8] "Oxfam Natural Re source Justice Strategic Plan 2021-2025," *Oxfam*, accessed October 10, 2022, https://webassets.oxfamamerica.org/media/documents/eng_strategic_focus_final_1.pdf?_gl=1*k58lh2*_ga*NDc2NzY2MjgxLjE2MzU3OTg1MDk.*_ga_R58YETD6XK*MTYzNTc5ODUwNy4xLjAuMTYzNTc5ODUwNy42MA.

Least developed countries (LDCs) are more easily influenced when compared to developed countries. Many LDCs, which lack basic infrastructure and development capability, depend on Foreign Direct Investment (FDI) in extractive industries.[9] Leaders and citizens in these countries expect foreign extraction to bring in revenues, jobs, and stability. Because of the highly capital-intensive nature of extractives, LDCs lack financial and technical resources to extract and export their natural resources.[10] But in many cases in the developing world, such as African and Latin American countries, the national government, with weak regulatory frameworks, has found it hard to control and regulate large MNCs.[11] In developing countries, MNCs tend to have symbiotic relationships with ruling elites.[12] In this context, MNCs find opportunities to exploit low-wage laborers and invest in locations where there is less government control.[13] Equipped with modern technologies and financial assets, and supported by their home-government policies, MNCs have the power to influence local development paths by transferring skills and technology to the host countries.[14] Companies also may directly engage in political activities of the host country through lobbying and campaigning activities.[15] And MNCs' existence may pose challenges to local small businesses, by monopolizing markets. Moreover, MNCs' operational failures during extraction, such as toxic air emissions, may lead to various types of pollution. The varying adverse impacts of large-scale resource extraction have meant that the rising market concentration among MNCs, especially

[9] "World Investment Report 2020," *UNCTAD*, accessed October 11, 2022, https://unctad.org/webflyer/world-investment-report-2020.
[10] Ruben, Gonzalez-Vicente, "Mapping Chinese Mining Investment in Latin America: Politics or Market?," *The China Quarterly* 209 (2012): 35–58.
[11] In Song Kim and Helen V. Milner, "Multinational Corporations and their Influence Through Lobbying on Foreign Policy," *Multinational Corporations in a Changing Global Economy* (2019): 497-536.
[12] Raphael Kaplinsky, *Readings on the multinational corporation in Kenya*, Oxford University Press, 1979; Nicola Swainson, *The development of corporate capitalism in Kenya, 1918-77*, University of California Press, 1980.
[13] Nate Signham, "Mining corporations loot the global south – no consequences," Salon.com, June 7, 2019, https://www.salon.com/2019/06/10/mining-corporations-loot-the-global-south-no-consequences_partner/.
[14] Plaxedes Gochero and Seetanah Boopen, "The Effect of Mining Foreign Direct Investment Inflow on the Economic Growth of Zimbabwe," *Journal of Economic Structures* 9, no. 1 (2020): 1–17.
[15] Kim and Milner, 500.

corporations in the mining sector, generates many concerns at the community level.[16] Perhaps most visibly, social mobilizations in extractive zones have appeared at a rapid rate.[17]

1.2 Background: Mining MNCs and the China Question

Among all the extractive industries, mining, especially large-scale mining, has long been associated with poor labor conditions, unequal distribution of wealth, and environmental unsustainability.[18] The environmental impacts of mining, especially open-pit mining, are overwhelmingly obvious. Open-pit mining is a process used to access underground ores or minerals present in a shallow layer, through blasting soil and vegetation.[19] This method increases the vulnerability of the surrounding area's environment, as it directly affects the air, water, and soil. Open-pit mining generates large amounts of mining waste. The pollutants significantly change locals' day-to day lives.[20]

Due to the devastating environmental impacts of mining, mining-related conflicts are highly prevalent. For example, in work explores the a universe of potential conflicts in Latin America, Haslam and Ary Tanimoune put the conflict rate at around 21%, Akchurin puts it at 40% in Chile, Irrarazaval puts it at around 25% in Chile, Orhuela puts it also at around 25% in Peru.[21]

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[16] Signham, 2019.
[17] Tomas Frederiksen, "Corporate social responsibility, risk and development in the mining industry," *Resources Policy* 59 (2018): 495-505.
[18] Anthony Bebbington, Leonith Hinojosa, Denise Humphreys Bebbington, Maria Luisa Burneo, and Ximena Warnaars, "Contention and Ambiguity: Mining and the Possibilities of Development," *Development and Change* 39, no. 6 (2008): 887–914.
[19] Jonghoon Park, Eunhye Kwon, Euijin Chung, Ha Kim, Batbold Battogtokh, and Nam C. Woo, "Environmental sustainability of open-pit coal mining practices at Baganuur, Mongolia," *Sustainability* 12, no. 1 (2019): 2.
[20] "What are the Causes, Effects, and Prevention of Soil Pollution?," *Earth Reminder For Everyone*, October 2, 2022, https://www.earthreminder.com/soil-pollution-causes-effects-prevention/.
[21] Paul Alexander Haslam and Nasser Ary Tanimoune, "The Determinants of Social Conflict in the Latin American Mining Sector: New Evidence with Quantitative Data," *World Development* 78 (2016): 401-419; Maria Akchurin, "Mining and defensive mobilization: Explaining opposition to extractive industries in Chile," *Sociology of Development* 6, no. 1 (2020): 1-29; Felipe Irarrazaval, Caroline Stamm, Aldo Madariaga, Antoine Maillet, and Gonzalo Franetovic, "Examining the effects of social protest on the environmental impact assessment process in Chile," *Environmental Impact Assessment Review* 99 (2023): 107044; José Carlos Orihuela, "The making of conflict-prone development: trade and horizontal inequalities in Peru," *The European Journal of Development Research* 24 (2012): 688-705.

In Africa, nearly one quarter of mining operations face social conflict.[22] The Armed Conflict Location and Event Dataset (ACLED) also indicates that between 1997 and 2020, there have been around 4,721 mobilizations close to industrial mines in Africa.[23] Reasons for conflict span environmental degradation, unfair compensation, labor disputes, and conflict over human rights abuses."[24] For instance, from 2019 to 2022, Mahanadi Coalfields Limited (MCL), one of the major coal producing companies in India, has been facing protest from locals in Hemgir, a town in Hemgir Tehsil in Sundargarh District of Odisha State, who are impacted by an MCL project and who rose up over the mining plans, including unresolved environmental disputes and compensations.[25] In 2021, thousands of environmental activists in Serbia blocked roads to protest Rio Tinto's new lithium mine project.[26] Members of the Indigenous community of the Huancuire community in the Andean Apurímac region of Peru in 2022 protested the Chinese-owned Las Bambas copper mine project to demand the company's return of the ancestral lands.[27]

Given the growth of foreign direct investment and the increasing effects of MNCs' activities in the mining sector, it is important to evaluate the impact of these MNCs' performances on the ground. One interesting phenomenon is that six of the top ten leading MNCs in the mining sector worldwide are Chinese-owned (China Shenhua Energy, Yanzhou Coal Mining, Zijin Mining Group, China Coal Energy, China Molybdenum, and Shanxi Coal Industry).[28] The

[22] Selina Bezzola, Isabel Günther, Fritz Brugger, and Erwin Lefoll, "CSR and local conflicts in African mining communities," *World Development* 158 (2022): 105968.
[23] Anouk Rigterink, Tarek Ghani, Juan Lozano, and Jacob Shapiro, "Mining Competition and Violent Conflict in Africa: Pitting Against Each Other," *University of Washington mimeo* (2022).
[24] Willice O. Abuya, "Mining Conflicts and Corporate Social Responsibility: Titanium mining in Kwale, Kenya," *The Extractive Industries and Society* 3, no. 2 (2016): 485.
[25] Express News Service, "Mahanadi Coalfields Ltd land Oustees Protest over R&R Settlement," *The New Indian Express*, October 11, 2022, https://www.newindianexpress.com/states/odisha/2022/oct/11/mahanadi-coalfields-ltdland-oustees-protest-over-rr-settlement-2506969.html.
[26] "Thousands of Serbians Block Roads to Protest Lithium Mine Project," *ALJAZEERA*, December 11, 2021, https://www.aljazeera.com/news/2021/12/11/serbias-roads-blocked-for-third-weekend-of-lithium-mine-protest.
[27] Marcelo Rochabrun, "Peru community wants its land back, threatening Chinese copper mine," *Reuters*, May 12, 2022, https://www.reuters.com/world/americas/peru-community-wants-its-land-back-threatening-chinese-copper-mine-2022-05-12/.
[28] M. Garside, 2022.

World Investment Report 2020 indicates that Chinese state-owned multinational enterprises (MNEs) and privately owned Chinese companies represent nearly one-half of all heavy-industry MNEs. These Chinese companies mainly operate in the extractive, utility, and metal sectors of many developing nations.[29]

Chinese extractive firms have attracted particular attention internationally, as China is playing an increasingly important role in the global economy. Since the late 20th century, China has been expanding its investments and extractive industry operations in Asia, Latin America, and Africa, due to its aggressive demand for raw materials.[30] China also has set foot in resource-rich regions in the United States, Canada, Australia, and Greenland.[31] China is a major mineral producer, and its mineral consumption has accounted for the growing share of global mineral demand.[32] In 2013, the Chinese government led by president Xi Jinping launched its international infrastructure development program. The new 21st century Silk Road program, or Belt and Road Initiative (BRI), includes infrastructure development projects that span land and sea transportation, energy infrastructure, and extractive industry infrastructure.[33] 140 countries and thirty-two international organizations signed a BRI joint development contract with China during 2013–18. The BRI cooperative countries are spread across Asia, Africa, Europe, Australia, and Latin America. The total estimated Chinese investment in BRI countries is approximately U.S. $90 billion. BRI projects are supported by the Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund (SRF). These banks serve as "key loan and

[29] Tim Wegenast, Mario Krauser, Georg Strüver, and Juliane Giesen, "At Africa's Expense? Disaggregating the Employment Effects of Chinese Mining Operations in Sub-Saharan Africa," *World development* 118 (2019): 39–51.
[30] J. Michelle Klinger, "Rescaling China-Brazil investment relations in the strategic minerals sector," *Journal of Chinese Political Science* 20 (2015): 227-242.
[31] Liz Bowman and Qingchao Xu, "China in the Arctic," (2020); Karin Buhmann, "Social Transformation and Normative Change Through CSR Standards? China's Engagement with International Labour Law in Domestic Guidance for the Textile Sector," *NAVEIÑ REET: Nordic Journal of Law and Social Research* 7 (2018): 19-33.
[32] Masuma Farooki, "China's mineral sector and the Belt & Road Initiative," Strade Policy Brief (2018): 8.
[33] "Belt and Road Initiative." *The World Bank*, March 29, 2018, https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative.

investment vehicles."[34] Other than infrastructure, resource development projects also have been listed under the BRI initiative.[35] Chinese MNCs, guided and supported by the BRI initiative, distinguish themselves from MNCs from other countries, because both state-owned and non-state-owned Chinese mining companies have to operate under the BRI rules and guidelines.

Having provided a steady source of financing to host countries,[36] Chinese extractive MNCs face criticisms that their operational procedures may have contributed to local social mobilizing around project areas. Chinese-owned corporations, especially state-owned enterprises (SOEs)[37] have been criticized by the international community for employing business models that fail to establish sustainable, long-term development for communities impacted by extraction.[38] For example, local workers in areas of Africa have mobilized and accused Chinese mining corporations of violating labor rights. Chinese SOEs are also considered to be multinational corporations; though controlled by the state, they operate in the same way as other types of mining enterprises overseas. Apart from dynamics directly surrounding investments in mining and hydrocarbons, Chinese MNCs—both state-owned and private—also have developed a negative image through more tangential activities, such as interfering in Nigerian domestic affairs by selling arms to the Nigerian government.[39] Given these criticisms and negative impacts, and considering the sheer weight of Chinese investment in mining, it is essential to

[34] Sun Xi, "Responsible practices are key to BRI's success," *Asia Times*, May 14, 2019, https://asiatimes.com/2019/05/responsible-practices-are-key-to-bris-success/.
[35] "Belt and Road Portal," Accessed November 1, 2022, https://www.yidaiyilu.gov.cn/.
[36] For example, "Chinese actors have become preferred strategic partners in the financing and implementation of Ecuadorian infrastructure projects, and Chinese mining investment has been decisive for the country's national development." From Cintia Quiliconi and Pable Rodriguez Vasco, *Chinese mining and Indigenous resistance in Ecuador*, Carnegie Endowment for International Peace, 2021,
[37] In this paper, Chinese MNCs include both SOEs and private companies.
[38] Chris Alden and Martyn Davies, "A Profile of the Operations of Chinese Multinationals in Africa," *South African journal of international affairs* 13, no. 1 (2006): 83-96.
[39] Alden and Davis 88; Matthew E. Chen, "Chinese National Oil Companies and Human Rights," *Orbis* 51, no. 1 (2007): 41-54.

address Chinese MNCs' behaviors in particular to understand more generally the politics of mining globally.

1.3 Project Overview

In the context of increasing foreign mining activities and their impacts, and the growing number of social conflicts resulting from mining operations, this dissertation investigates whether Chinese MNC investment is positively associated with social conflict, and if so, whether that relationship is a result of MNC practices, and/or other factors. The research tests the general assumption that Chinese multinational firms create more social conflicts in communities they operate, relative to other companies. This expectation is prominent within the larger literature on mining and mining conflict; scholars have observed and expressed alarm about the Chinese government's aggressive foreign investment strategy in mining during recent decades.

Existing research has suggested that Chinese extractive policies are different from those of western countries. One way that Chinese MNCs might be different is that they may engage in certain behaviors that interact with local communities in a way that increases social conflict. Broadly speaking, scholars paint a picture in which China's political regime together with its national culture and its economic development path influence Chinese extractive MNCs' activities abroad and might contribute to more social conflict. At the same time, scholars writing on extractive conflict (in general) have argued that conflicts result from companies' inadequate performances, especially regarding community engagement practices. That is, in this second view, social conflict is due to mistakes that *any* company could make; that is, there is no "Chinese way" of operating abroad.

So, do Chinese firms behave differently or not? And is there a "Chinese way" of operating overseas? This dissertation seeks to help answer these questions by explaining socio-environmental conflict surrounding Chinese and non-Chinese owned mining projects. According to Svampa, "socio-environmental conflicts are related to the access and control of natural resources, where different actors with different interests and values are confronted in a context of great power asymmetry, due to the realignment between the political and the economic powers."[40]

The dissertation engages the following research questions: Do Chinese firms affect socio-environmental conflict around extraction? If so, how? To what extent do firm practices explain variation in conflict?

Given the global prominence of Chinese firms in mining, the study's focus on Chinese MNC mining projects (within the larger sample, which also includes non-Chinese projects) contributes to our understanding of extractive conflict, with implications for the trajectory of extractive sectors and, in turn, alternative or sustainable development options.

1.4 Contributions and Hypotheses

This dissertation analyzes the implication of Chinese mining operations for local community relations. Specifically, it seeks to understand whether Chinese extraction is different from extraction by companies headquartered in other countries when it comes to spurring social conflict in mining project zones; and, if it is different, how so, and what characteristics of Chinese projects or project regions matter.

[40] Carina Llosa, "Socio-Environmental Conflicts as Social Cohesion Thermometers: A Case Study," *Tapuya: Latin American Science, Technology and Society* 2, no. 1 (2019): 239; Maristella Svampa, "Commodities Consensus: Neoextractivism and Enclosure of the Commons in Latin America," *South Atlantic Quarterly* 114, no. 1 (2015): 65-82.

The dissertation is timely and fills a void in the existing research. As an empirical study on mining conflict around the world, the research informs our understanding of extractive conflict and, in turn, the conditions under which large-scale extraction is possible or not possible, with implications for sustainable development options and environmental protections. The dissertation specifically focuses on the role of multinational companies in causing and/or mitigating social conflict. This research brings together variable-based comparative work on extractive conflict, on one hand, and China-centered work on extraction and conflict, on the other.

With China expanding its global position in mining through the development of the BRI during the 2010s, a study of how Chinese corporations behave abroad has become even more important for understanding mining conflict and development. Many countries in which BRI projects are located are developing countries with relatively weak legal and institutional frameworks. Extractive projects offer an excellent opportunity to examine the impact of Chinese corporations. Furthermore, the study will potentially shed light on broad concerns in the field of international relations about China's government potentially trying to influence the rules of the game of the global economic and/or political order.[41]

This dissertation explores whether Chinese firms behave differently relative to non-Chinese firms or, alternatively, whether there may be an unspecified "China" effect for mining MNCs. The dissertation develops the hypotheses as follows:

1) Are Chinese firms different?

[41] Mimi Zou, "Corporate Social Responsibility on the Belt and Road," *Australian Institute of International Affairs*, January 29, 2019, https://www.internationalaffairs.org.au/australianoutlook/corporate-social-responsibility-belt-road/.

H1: Chinese mining MNEs operations confront more conflict than projects financed by firms from other countries.

H1 (a): Chinese mining MNEs have worse CSR practices than other foreign firms.

H1 (b): Chinese SOEs, being closer to the Chinese government and more influenced by Chinese government's decisions, have less discretional power, are more likely to confront conflict than Chinese private firms.

H1 (c): Chinese mining MNEs often operate in politically risky countries (countries that have high levels of social unrest and political tensions), where the context is more prone to conflict.

2) Or does the quality of CSR performance matter?[42]

H2: Firms' CSR performance is associated with variation in conflict. Six factors reflect the quality of firms' CSR performance: CSR publication, community engagement practice, strategies for environmental protection, labor practice, whether there is content on its website or publication that describes/talks about CSR in the local language where the company operates, and whether a firm has legacy conflicts.

H2 (a): Firms with poor CSR publication confront more social conflict.[43]

H2 (b): Firms with poor community engagement practices confront more conflict.

H2 (c): Firms with poor strategies for environmental protection confront more conflict.

[42] The CSR literature generally argues that extractive firms' weak performance on the ground is associated with worse firm-community relations and can generate social conflicts.
[43] H2(a) and H1(a) could both be true, which means, poor CSR practices matter, and Chinese firms have worse CSR than other firms. The aim of separating the two hypotheses is to make the variation clear.

H2 (d): Firms with poor labor practices confront more conflict.

H2 (e): Firms without content on their website or publication that describes/talks about CSR in the local language where they operate confront more conflict.

H2 (f) - Firms with more legacy failures contribute to more conflict.

1.5 Limitations

One limitation of the quantitative component of this study is inherent to quantitative studies more generally: a lack of comprehensive measures of certain variables, and a lack of in-depth examination of the causal mechanisms connecting proposed variables. The quantitative analysis in this study provides a general overview of mining MNCs' performance around the globe. The study of 5 cases provides a comprehensive illustration of the quantitative study results and points out directions for future research. The case studies that complement the quantitative analysis (see Chapter 5) draw on existing sources to illustrate the study's causal model at work. However, to fully assess local CSR performances, more in-depth research, for instance based on interviews, would be needed—on these illustrative cases and on cases in the larger sample.

Another limitation comes from the project dataset. The dataset contains data only up through 2019 and includes only some of the existing Chinese-firm operated projects. Therefore, many conflicts, even some well-known ones (those that have received media attention) are not captured in the dataset. For instance, existing literatures, databases, and news have reported many Chinese-firm generated conflicts in both Latin America and Africa that are not included in this dataset. Importantly, despite its limitations, the dataset does permit comparisons between Chinese and non-Chinese firms and seems to present a random selection of representative mining projects around the globe.

Future studies could draw on a more comprehensive dataset of more projects, including more projects operated by Chinese firms. Moreover, more detailed qualitative research could be done that focuses on companies' performance in each region. Overall, this study aims to use a combination of quantitative, spatial, and qualitative research to provide a broad overview of mining companies' performances in the world and companies' social responsibility and casual relationship with social conflicts.

1.6 Project Dataset Summary

This section provides a brief description of the project dataset and findings. The results of the quantitative and qualitative portions of the study are presented in detail in Chapters 4 and 5, respectively.

The project is based on data gathered about 1001 mining projects worldwide from 2009 to 2019, spread across all of the continents except Antarctica (see Figure 1.1).[44] The 1001 cases were selected, because they make up all the cases in the Global mine and project database.

The mining projects dataset was downloaded from Infomine (The Northern Miner Group).[45] The dataset is only available for download with a subscription to Infomine (The Northern Miner Group). It includes data from April 2008 up until December 31, 2019. Projects were eliminated based on the "Development Status" of the mine. I selected all cases for which the status was "advanced exploration and above," thus omitting projects at the prospect and exploration phase. I collected the location (coordinates) of each project through manual searches of the internet. The dataset provides a good universe of mining projects around the

[44] I produced the map using ArcMap.
[45] InfoMine, now changed its name to the Northern Mining Group is a global information and technology company that builds products and provide services for mining companies and others who are interested in the mining industry. The company provides mining related data for its clients. Main website: InfoMine, accessed October 1, 2022, https://www.glacierrig.com/infomine/; Introduction of the company: "InfoMine," *LinkedIn*, accessed October 1, 2022, https://www.linkedin.com/company/infomine/about/.

world, including projects with social conflict and those without conflict. I created independent variables, such as ownership and firm size, to generate identifiers for the properties. Of the 1001 cases, 266 cases have been associated with conflict. Figure 1.2 illustrates the spatial distribution of the conflict cases. Of the 1001 projects, there are 22 joint-venture cases (a joint venture being a project owned by two companies that each own 50 percent), 6 of which are associated with social conflict. One of those 6 projects is associated with Chinese firms: it is partially owned by the Chinese Anhui Foreign Economic Construction (Group) Co., Ltd.

Figure 1.1 Worldwide Mining Sites 2009-2019

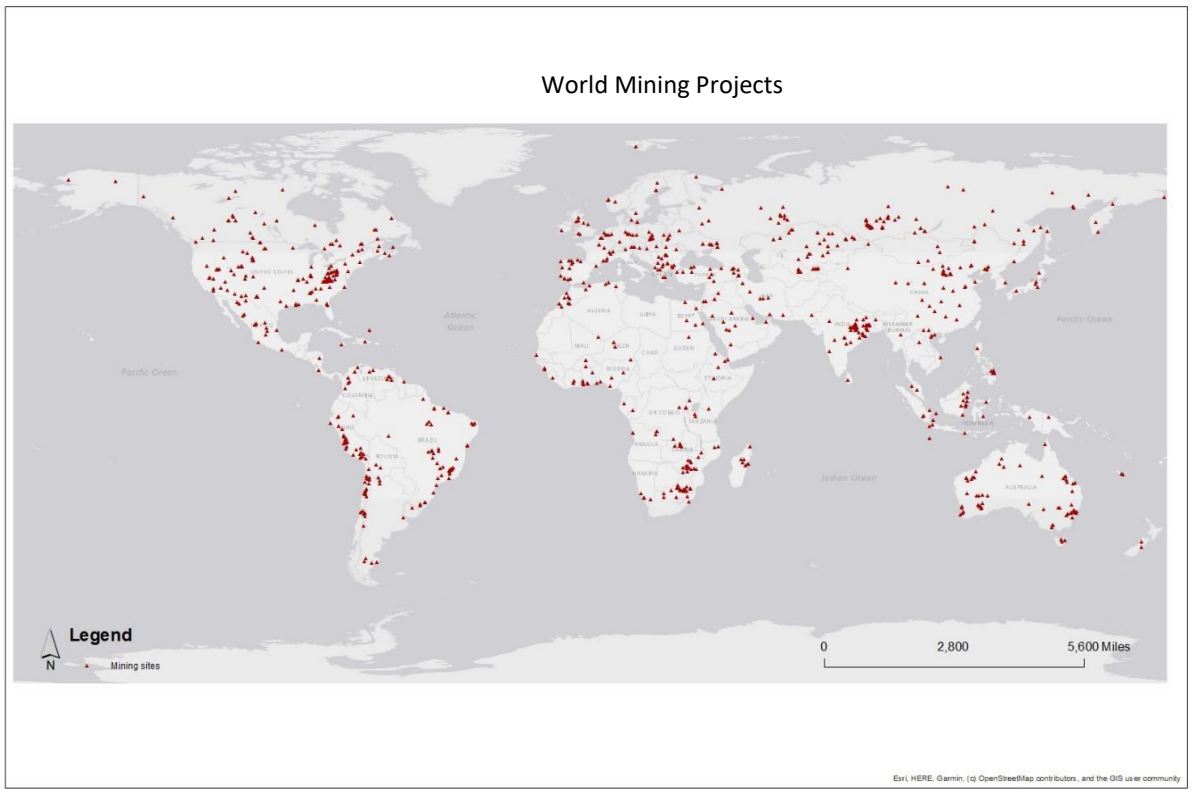


Figure 1.2: Illustration of 266 conflict cases

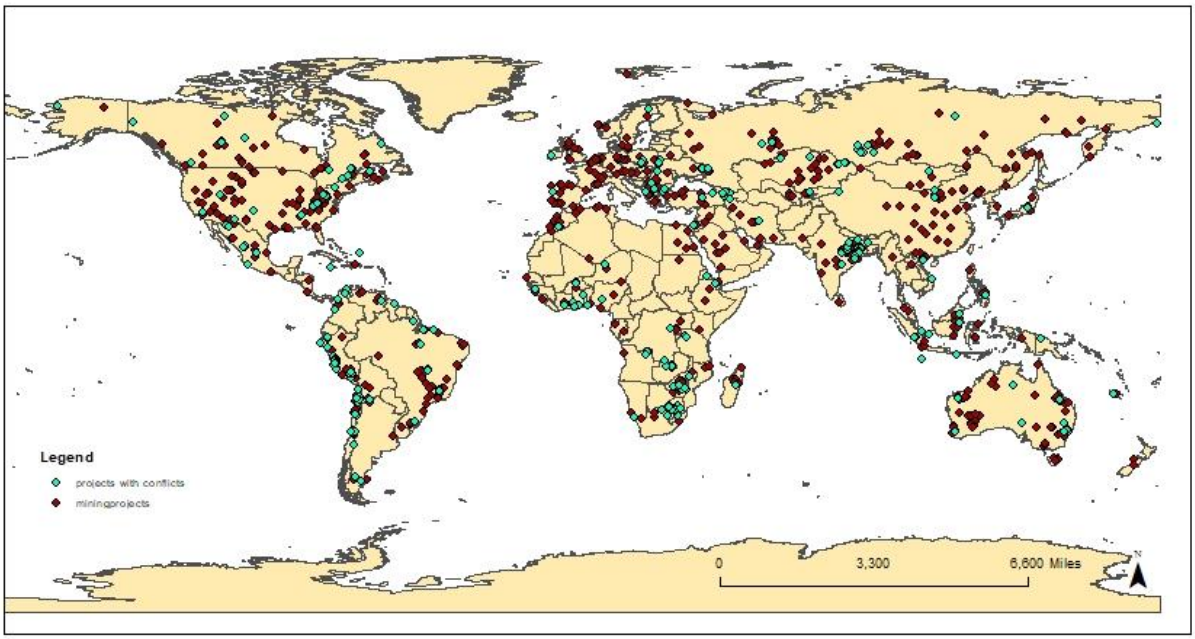


Figure 1.1 tells us that the project dataset covers all continents except Antarctica. Figure 1.2 illustrates the 266 mining projects that are associated with existing/existed social conflicts.[46]

[46] Both maps are produced by the author through software ArcMap.

Figure 1.3 Conflicts associated with Chinese firms

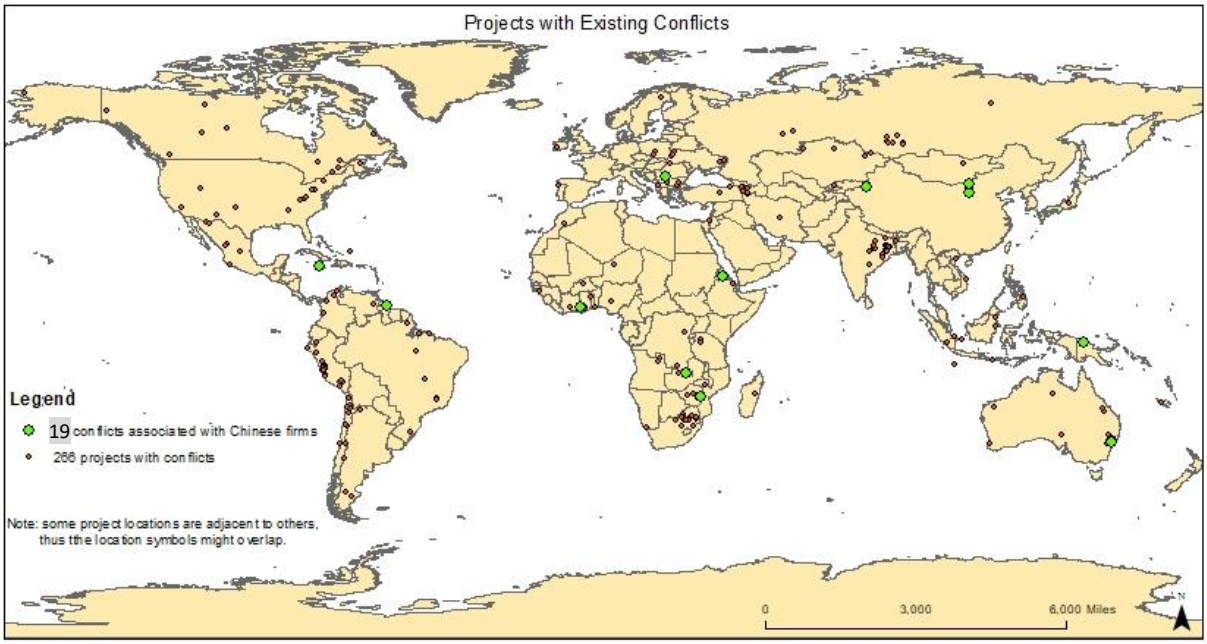


Figure 1.3 illustrates that out of the 266 conflict cases, 19 of them are associated with Chinese companies.[47]

There are a total of 555 companies in the dataset, including 519 non-Chinese owned companies and 36 Chinese-owned companies. Chinese companies operate 66 of the projects, 45 of which are on China's mainland, and 19 of which are associated with social conflicts. 4 of the conflicts over Chinese projects are generated within Chinese mainland and mainly were caused by pollution. Chinese companies have generated 15 conflicts in other countries where they have mining operations. The reasons for the conflicts in these 15 cases span human rights violations, land rights issues, pollution, and labor relations.

After running descriptive statistics and logistic regression, this dissertation found that the China dummy variable is not statistically significant. The predicted probability analysis

[47] Map produced by the author using ArcMap.

(detailed in Chapter 4) indicates that Chinese firms have slightly higher probabilities (29.0822%) to generate social conflict than non-Chinese firms (28.99434%). These results are not sufficient to accept Hypothesis H1 that Chinese mining MNE operations confront more conflict than non-Chinese mining MNE operations. Therefore, H1 was rejected. H1(a) was also rejected because Chinese firms have higher average CSR scores in this study.

Using logistic analysis, this study found that Chinese SOEs are not more likely to generate conflicts than Chinese private firms. H1 (b) was thus rejected. Moreover, neither descriptive nor logistic analysis suggests that, more than other firms, Chinese mining MNEs operate in politically risky countries—that is, countries that with high levels of social unrest and political tensions, where the context is more prone to conflict. Thus H1(c) was rejected.

The data model suggests that CSR sum score is statistically significant and firms with higher CSR scores generate more conflict. For the factors that reflect the quality of CSR performances, only variable legacy conflict is statistically significant, thus, H2 (b), H2 (c), H2 (d), and H2 (e) were rejected, H2 (f) was accepted. More detailed explanation will be provided in the following chapters regarding the data model, statistical tests, and detailed analysis results.

Overall, the dissertation finds that Chinese mining MNCs do not confront more conflict than other country owned firms; and more legacy conflicts contribute to more conflict. This finding has theoretical contributions. The result that Chinese mining MNCs do not perform worse threatens to falsify much of what has been discussed among scholars and social media venues about Chinese firms in the resource industry, that they behave worse and cause conflict. For this study, I've taken the Chinese case that we'd normally consider a most-likely scenario - Chinese firms are expected to be more associated with conflict and falsified it. This analysis opens the possibility of leveraging the falsification into an important theoretical contribution: when it comes to socio-environmental conflict around mining projects, there is no "Chinese

way" of operating overseas and both Chinese and non-Chinese mining MNCs confront more conflict when they have poor CSR performance.

1.7 Outline of the Dissertation

The remaining chapters are organized as follows. Chapter 2 is the literature review chapter. It investigates the causes of conflict associated with mining activities. It discusses the causal relationship between natural-resource endowment and social conflict from the literatures on the "resource curse," grievances, and CSR. The chapter also draws from the existing literature to present country- and community-level explanations for social conflict.

Chapter 3 outlines the research method and measurement strategies. It provides a detailed explanation of the variables to be tested. It starts with an introduction to the data sources. Then it moves on to address the measurement of the dependent variable, conflict, and the independent variables, including ownership, the dimensions of CSR performance (publication, community engagement practice, strategies for environmental protection, labor practice and language for CSR related contents on company's website, legacy conflict), and whether a company is a member of the UN Global Compact. All control variables are the host country's state wealth, freedom level (i.e., political regime), water risk level, reliance on extraction, and size of the company.

Chapter 4 summarizes the statistical test results of the data models.

Chapter 5 comprises a close-up analysis of five case studies. Based on the results of this comparative analysis, this chapter aims to illustrate central findings of the quantitative analysis.

Chapter 6 concludes the study by summarizing the study's findings and outlining political implications and policy recommendations that emerge from the analysis.

Chapter 2 Literature Review

As mentioned above in the Introduction Chapter, this dissertation brings together variable-based comparative work on social conflict, on one hand, and China-centered work on extraction and conflict, on the other, to investigate whether Chinese mining firms generate more social conflict than non-Chinese owned firms. Strangely, these two separate literatures have developed independent of each other. The variable-based comparative literature explains the various reasonings for social conflict. The literature is rich in quantitative and qualitative studies but has not focused on the question of how Chinese projects do alongside non-Chinese projects, in terms of conflict. The literature focused on Chinese investment and conflict is largely qualitative and lacks comparisons between Chinese projects and non-Chinese projects.

This literature review brings the two literatures together. First, it draws the key independent variables from the comparative literature through a comprehensive discussion of the resource curse and its domestic impacts, grievance mechanisms, and firms' CSR strategies. It organizes the independent variables according to the level of analysis at which each variable operates (country-level, community-level, company-level).

Second, the literature review engages the vast, qualitative literature that blames China for extractive, especially mining, conflict. This second section of the literature review shows intersections with the comparative literature—e.g., how Chinese firms have been blamed for having relatively bad CSR practices (where CSR in general has received attention in the comparative literature). This section discusses Chinese MNEs' CSR performances, Chinese SOEs' management strategies, and Chinese MNEs' activity patterns. The second section concludes by presenting the study's two sets of hypotheses.

The empirical analysis—Chapters 4 and 5—incorporates the variables that emerge from the comparative literature and from the China-focused literature, alongside a dummy variable for Chinese projects, so as to allow for an unidentified, China-specific factor to matter.

2.1 Sources on Social Conflict in Extractives

This section reviews the existing literature and identifies the various causes identified therein of social conflict associated with mining activities. At the macro level, in accordance with resource curse theories, high levels of corruption, rentier states, and less democracy provide the conditions for social conflicts to happen. At the community level, the grievance literature suggests that a community's "demand for rights" and "demand for services" explain its incentive to mobilize. Firm-community relations are important in explaining resource conflicts in part because firm behavior can impact community demands, and poor firm performance can trigger community resentments. The CSR literature generally argues that extractive firms' weak performance on the ground is associated with worse firm-community relations and can generate social conflicts. This part provides a detailed discussion of both community-level and more macro-level explanations for social conflicts. It also addresses why this dissertation focuses on community-level factors and not the country-level factors associated with the resource curse (i.e., export dependence, currency overvaluation, lack of diversification) to explain firm-community relationships.

National level factors associated with the resource curse (regime type, export dependence, currency overvaluation, lack of diversification) matter but are not sufficient to explain variation across mining projects in conflict, as "contextual conditions measured at the national level are too broad to capture the localized nature of the conflicts."[48] As Steinberg suggests, extractive

[48] Doug McAdam, Hilary Schaffer Boudet, Jennifer Davis, Ryan J. Orr, W. Richard Scott, and Raymond E. Levitt, "'Site Fights': Explaining Opposition to Pipeline Projects in the Developing World 1," *Sociological Forum* 25 (2010): 422.

firms' behavior must be understood within the geographical and demographical context of a community.[49] This study focuses on explaining firm-community relations through questioning how MNCs generate social conflicts.

2.1.1 Country-level explanations - state governance

The "resource curse" literature argues that countries with abundant natural resources tend to have less democracy and more social unrest.[50] According to Ross, since the 1970s, countries rich in natural resources have experienced more economic crises and political challenges compared to countries with far fewer resources. Countries such as Nigeria and Saudi Arabia with plentiful natural resources have often been politically less democratic and thus have faced high levels of political instability and lower levels of economic development. This over-dependence on a single non-renewable resource is termed the "resource curse".[51] Mineral wealth often has been associated with poor state governance and high levels of corruption. States dependent on external export revenue from natural resource extraction become rentier states and thus fail to establish strong institutions or develop a robust central bureaucracy.[52] A key mechanism connecting natural resource endowments to weak states is that governments in resource-rich countries do not rely as heavily as other governments on the taxation of the citizenry for income, deterring important state-building.[53] The weak state context makes way for social conflict, including over who benefits, and how much, from extraction.

[49] Jessica Steinberg, *Mines, Communities, and States: The Local Politics of Natural Resource Extraction in Africa*, Cambridge University Press, 2019: 66-82.
[50] Thad Dunning, *Crude Democracy: Natural Resource Wealth and Political Regimes*, New York: Cambridge University Press, 2008.
[51] Michael L. Ross, "The Politics of the Resource Curse," *The Oxford Handbook of the Politics of Development* (2018): 200.
[52] Erika Weinthal and Pauline Jones Luong, "Combating the resource curse: An alternative solution to managing mineral wealth," Perspectives on politics 4 (2006): 35-53.
[53] See Michael L. Ross, "What Do We Know About Natural Resources and Civil War?," *Journal of Peace Research* 41 (2004): 337-356; Michael L. Ross, "The Oil Curse," In *The Oil Curse*, Princeton University Press, 2012; Deborah Brautigam, Odd-Helge Fjeldstad, and Mick Moore, eds. *Taxation and State-Building in*

Apart from the structural forces associated with extractives, another country-level factor expected to impact extractive conflict is the strength of democratic institutions (which, as noted, may be impacted—but certainly not determined—by a country's resource endowment). Under democracy, states are less likely to repress social movements. The Freedom House index measures the degree of democracy considering the state's capacity to manage resource developments. [54] Democracy has provided a relatively liberal environment for communities to come together and mobilize, because it fosters collective action as individuals have more channels to mobilize under democracy than under authoritarianism. Political party competition also offers individuals the opportunity to influence politicians' behavior. For example, democracies such as Zambia provide public goods (including regulatory enforcement) at a greater rate and repress at a lower rate than autocracies like DRC.

Formal participatory mechanisms directly related to extractives also can serve to explain extractive conflict. States frequently employ participatory mechanisms at the approval stage for new mining projects. Participatory institutions such as public hearing for the environmental licensing of new projects and prior consultation might limit social conflicts, by containing and channeling community demands. Prior consultation has the potential of channeling Indigenous community concerns about new extraction, through productive conversations with the state, including about Indigenous knowledge.[55] When it comes to Indigenous communities impacted by extraction, international norms about Indigenous land rights emerge as central. According to international law governing Indigenous peoples' participation rights, Indigenous peoples, as both rights holders and stakeholders, have the right to prior consultation regarding major development on their lands. The 1989 International Labor Organization (ILO) Convention 169

Developing Countries: Capacity and Consent, Cambridge University Press, 2008; Eoin F. McGuirk, "The Illusory Leader: Natural Resources, Taxation and Accountability," *Public choice* (2013): 285-313.
[54] Arce, 105-108.
[55] Mark Nuttall, "The Isukasia Iron Ore Mine Controversy: Extractive Industries and Public Consultation in Greenland," *Nordia Geographical Publications* 41 (2012).

(C169) states that: "in cases in which the State retains the ownership of mineral or subsurface resources or rights to other resources pertaining to lands, government shall establish or maintain procedures through which they shall consult these people, with a view to ascertaining whether and to what degree their interests would be prejudiced, before undertaking or permitting any programs for the exploration or exploitation of such resources pertaining to their lands."[56]

Alternatively, active participation in public participation meetings can contribute to mobilizing, because participants realize their interests and come together through the prior consultation process. [57] In addition, the lack of substantive public consideration in environmental impact assessment, in terms of community impacts on project development, could make the process illegitimate in the eyes of local communities and ultimately lead to social conflicts. For instance, that the EIA for the Tía María mine project in Peru outlined a plan to use river water caused local communities to mobilize against the project. Thus, the lack of formal power through public participation mechanisms decreases individuals' perceptions of cost to mobilize and as a result causes mobilization.[58]

Communities left out of participatory processes also could bring conflict. Communities mobilized when the state inaccurately defined them as residing outside of areas that were impacted by development and therefore ineligible to participate. They fought to claim their rights to be protected. In short, formal participatory frameworks may bring about community mobilizing, in different ways.[59]

[56] Arce, 108.
[57] Maiah Jaskoski, "Environmental Licensing and Conflict in Peru's Mining Sector: A Path-Dependent Analysis," *World Development* 64 (2014): 873-883; McAdam et al., 402-410.
[58] Paul Alexander Haslam, "The Micro-Politics of Corporate Responsibility: How Companies Shape Protest in Communities Affected by Mining," *World Development* 139 (2021): 105322.
[59] Maiah Jaskoski, "The Politics of Extraction: Territorial Rights, Participatory Institutions, and Conflict in Latin America," (2022).

Related to how communities use formal institutions in their mobilizing is how a state's total lack of prior consultation mechanisms could bring on social conflicts—an issue that emerges specifically in the realm of Indigenous rights. One important international structure is, as noted, C169. In addition, the United Nations Framework on "Protect, Respect and Remedy," and the United Nations Guiding Principles on Business and Human Rights (UNGP)—the two foundational principles that address the issue of human rights and natural resource governance—also provide guidelines for the protection of Indigenous rights. Not signing onto the convention, or not having prior consultation laws or regulations, may result in social conflicts.

2.1.2 Firm ownership structure and intersections with the resource curse

The ownership structure of a mining project might affect the likelihood of social conflict. A mining property can be publicly- or privately-owned and, while extractive companies tend to operate internationally, some operate domestically, with potentially important implications for extractive conflict.

Luong and Weinthal argue that more conflicts emerge where mineral reserves are owned by the state. Scholars have found that domestic state-owned companies in the resource sector more frequently confront conflict over wealth distributional issues.[60] State ownership of mineral reserves promotes the creation of weak institutions, because in this circumstance, state elites and bureaucrats, who are granted power by the state, might use their position to favor their own interests, contributing to ongoing weaknesses in the state (and especially state mining companies) and, in turn, social unrest over mining. According to Wegenast and Schneiger, institutions play a mediator role, reducing the tensions between resource wealth and social

[60] Bernard Mommer, "Integrating the Oil: A Structural Analysis of Petroleum in the Venezuelan Economy," *Latin American Perspectives* 23 (1996): 132-158; Terry Lynn Karl, *The Paradox of Plenty: Oil Booms and Petro-states*, Vol. 26. University of California Press, 1997.

inequalities. Institutions "ameliorate the curse" as they promote state accountability and state competence. Strong institutions stop elites and bureaucrats from grabbing more resources to pay off their supporters.[61] In this context, "on the country-level, the presence of state-controlled resource extraction may further the greed of political actors and intensify competition for access to the key bodies responsible for managing resource-revenue distribution, thereby furthering the risk of internal violence."[62]

In following with this logic, the literature anticipates less conflict where mineral reserves are owned by a private domestic corporation, due to the stronger institutions around mining, relative to settings in which domestic state companies operate. Domestic private firms prefer institutions with a broader economic function, because they are not solely interested in the mining sector. Furthermore, because private domestic ownership encourages state elites and company managers to work together and generate profits, this ownership structure is less likely to contribute to weak state institutions.[63]

In contrast to domestic firms, foreign investors prefer institutions that directly serve the mining sector. Thus, the functions of these institutions can be limited, which might result in conflict.[64]

Apart from arguments about how foreign firms impact institutions in the countries in which they operate, are expectations about foreign firm behavior in project areas. In one view, foreign firm behavior should preempt conflict. Compared with other forms of ownership, foreign investors, especially those large multinational enterprises, might adopt advanced technologies

[61] Tim Wegenast and Gerald Schneider, "Ownership matters: Natural resources property rights and social conflict in Sub-Saharan Africa," *Political Geography* 61 (2017): 111.
[62] Wegenast and Schneider, 112.
[63] Pauline Jones Luong and Erika Weinthal, "Rethinking the Resource Curse: Ownership Structure, Institutional Capacity, and Domestic Constraints," *Annu. Rev. Polit. Sci.* 9 (2006): 241-263.
[64] Luong and Weinthal, 243-250.

that are timely and environmentally friendly. They may also have more comprehensive CSR strategies. These factors combined might reduce the likelihood of social conflict.[65]

In contrast, another argument suggests that foreign firms should generate greater conflict relative to firms operating domestically. With their profit-maximization nature, foreign firms may be less likely to invest in environmental protection and community development initiatives. Moreover, foreign companies lack certainty about whether host governments will comply with the length of their exploration or extraction licenses. This concern makes them extract as many resources as possible in a short term, without investing in establishing longer-term, positive relations with local communities, thereby generating social conflicts. In contrast, domestic (state-owned) firms do not have the tight time constraint and do not have the burden of renewing their licenses. They have higher incentives to develop a better community relationship, which means, they are less likely to generate social conflicts.[66]

Scholars also argue that the entrance of a multinational extractive corporation might trigger discontent within communities who are not familiar with foreign operations or foreign workers. This argument builds on the literature that neoliberal reform triggers anti-market mobilization. For instance, a state's shift toward market privatization brings in foreign investors, including MNCs. Because locals then organize against market-reforms, MNCs easily become a target.[67] This happened in Puno, Peru, where 25,000 protesters gathered in June 2011 to demonstrate against the Canadian Bear Creek Mining Company's plans for a 5,400-hectare open-pit silver mine.[68]

[65] Wegenast and Schneider, 111.
[66] Wegenast and Schneider, 113-114.
[67] Arce, 110.
[68] Emma McDonell, "The Co-Constitution of Neoliberalism, Extractive Industries, and Indigeneity: Anti-Mining Protests in Puno, Peru," *The Extractive Industries and Society* 2 (2015): 112-123.

In addition, foreign operations could raise problems regarding wealth distribution between the companies and the locals. Moreover, depending on the relationship between the foreign firm and the community, and the foreign firm and local governmental institutions, foreign operations might accelerate existing tensions between the local government and the community, or among different ethnic groups, and thus trigger social conflicts.[69] Foreign investors have even been characterized as acting like neo-imperialists and thereby fueling grievances among community members, especially through the mistreatment of local workers.[70]

This dynamic that foreign firms generate more problems happens more in developing countries, due to the companies' incentives to operate in the developing world, and government and community reliance on myriad social investments by foreign firms. Foreign companies that operate in the developing world are attracted to places with fewer regulations than their home countries, frequently in the advanced industrialized world.[71] Residents and governments in the developing world can expect more from the foreign corporations than the economic profits that they bring. National governments in these resource-rich countries have less incentive to ensure a stable social and economic environment and tend to use MNCs as a scapegoat – placing responsibility for development spending on MNCs, who have the capacity to support themselves and ensure economic development and tend to build infrastructures in local communities. MNCs bear more responsibilities in places where national governments have limited capacities or where national institutions are less developed or have limited legitimacy. As the resource-curse theory has emphasized, weak legal and institutional settings in developing countries can make the states incapable of providing basic social services,

[69] Victor Asal, Michael Findley, James A. Piazza, and James Igoe Walsh, "Political Exclusion, Oil, and Ethnic Armed Conflict," *Journal of Conflict Resolution* 60, no. 8 (2016): 1343-1367; Aderoju Oyefusi, "Oil and the Probability of Rebel Participation Among Youths in the Niger Delta of Nigeria," *Journal of Peace Research* 45 (2008): 539-555.
[70] Wegenast and Schneider, 111.
[71] Luong and Weinthal, 251-257.

including welfare services and public infrastructure, thus allowing for MNCs' choices to be more important, in terms of shaping local economics or politics around mining. According to this dynamic, communities mobilize to demand more of the revenue generated by extraction, with the expectation that corporations (and not the state) will provide them services.

In the context of such high expectations, MNC investments may only cause or exacerbate social conflict. MNCs might exacerbate tensions that already exist between the government and local groups, and create problems such as inequality, fragmentation, and insecurity among the local population,[72] therefore increasing the possibility of social conflict. MNCs' presence hence contributes to political corruption of the host government and in this way hinders the sustainable development of local communities.[73] Multinational extractive industries thus have been promoting community development programs, such as building schools, introducing experts, or constructing local roads. But studies have shown that the actual results in the local communities are very different from these companies' original objectives.[74] Therefore, multinational extractive industries' failure to meet these expectations would potentially cause social unrest. Research have also suggested that foreign corporation practices can have political effects on local communities such as contributing to local security governance.[75]

[72] Glenn Banks, "Activities of MNCs in Extractive Industries in Asia and the Pacific: Implications for Development," *Transnational Corporations* 18, no. 1 (2010): 43-59.
[73] Matthew Amengual, "Buying Stability: The Distributive Outcomes of Private Politics in the Bolivian Mining Industry," *World Development* 104 (2018): 31-45; Jędrzej George Frynas, "Corporate Social Responsibility and Societal Governance: Lessons from Transparency in the Oil and Gas Sector," *Journal of Business Ethics* 93 (2010): 163-179.
[74] Gabriel Eweje, "Multinational Oil Companies' CSR Initiatives in Nigeria," Managerial Law 49.5/6 (2007): 218-35; Jedrzej George Frynas, "The False Developmental Promise of Corporate Social Responsibility: Evidence from Multinational Oil Companies," *International Affairs* 81, no. 3 (2005): 581-598.
[75] Deborah Avant and Virginia Haufler, "Transnational Organisations and Security," Global Crime 13, no. 4 (2012): 254–275.

The above arguments indicate that foreign ownership of a mining project is likely to be associated with social conflicts, but existing research disagrees about whether foreign companies trigger more or less conflict relative to domestic firms. This study thus fills the void.

Apart from the question of whether a company is foreign or domestic is the issue of whether an MNC's country-of-origin—with special attention devoted to Canadian-owned companies—affects mining conflict. Halam, Tanimoune and Razeq developed their research and their theories are that Canada's lack of regulation on multinational industries causes their firms to perform "weaker" than other countries' firms, thus generate more social conflicts; host countries' environment and mining sector's characteristics can also contribute to social conflicts. They use quantitative analysis to test the relationship between the ownership of mining firms and known social conflict.[76] Inspired by this study, this dissertation also examines whether company ownership, representing unique characteristics (such as the level of regulation) of the country, has an effect or can trigger social mobilizations. As discussed in more detail below, the research devotes special attention to the question of whether Chinese firms behave differently than other companies and whether there is a connection between Chinese ownership and social conflict.

2.1.3 Community-level explanations – grievances

At the community-level, local grievances towards extractive operations have been hypothesized to contribute to conflicts around extractive industries. The focus of many scholars on grievances as driving extractive conflict is consistent with social movement theory's broader shift away from focusing primarily on resources and opportunities—central to studies of social movements in recent decades—and return to emphasizing the influence of grievances on

[76] Paul Alexander Haslam, Nasser Ary Tanimoune, and Zarlasht M. Razeq, "Do Canadian Mining Firms Behave Worse Than Other Companies? Quantitative Evidence from Latin America," *Canadian Journal of Political Science/Revue canadienne de science politique* 51, no. 3 (2018): 521-551.

people's behavior (e.g., see Della Porta's work on anti-austerity protests and mobilizing against neoliberal capitalism).[77]

In scholarship on extractive conflict, a purely grievance-based approach argues that resource extraction leads those who are suffering or who experience damages (either environmental or social) to rise up.[78]

In terms of the particular grievances that drive activists, community demands vary. One major finding in the literature is that threats to an existing agricultural economy can serve as a particularly intense grievance, triggering mobilizations. Arce addresses the diversity of mobilization around extractive industries. He argues that communities mobilize around an extractive project because of their "demand for rights" or "demand for services," both of which are derived from the investigation of residents' relationships with the extractive industries. According to Arce, "demand for rights" includes a community's demand for their rights to the access of land or water or other subsistence resources in their community that are affected or will be influenced by mining projects. "Demand for rights" often leads to confrontation. "Demand for services" correlates with community's inquiries on the allocation and redistribution of revenues generated by the extractive project, or their command for compensation or infrastructure building (a demand consistent with the resource-curse literature's "greed" focus).[79] Gustafsson develops Arce's theory and argues that "different power dynamics are shaped by communities' organizational strengths and corporate governance strategies and state intervention."[80] According to Gustafsson, communities'

[77] Donatella Della Porta, *Social movements in times of austerity: Bringing capitalism back into protest analysis*, John Wiley & Sons, 2015.
[78] Steinberg, 68; Sidney Tarrow, "Power in movement: Social movements and contentious politics," *Annual Review of Political Science* 4 (1998): 1-20; Haslam, 105322.
[79] Arce, 53-54.
[80] Maria-Therese Gustafsson, *Private Politics and Peasant Mobilization*. Basingstoke: Palgrave MacMillan, 2017, 3.

"demand for services" are affected by corporation-community relations and thus influence the patterns and outcomes of social mobilizing.

In the realm of "demands for rights," the topic of community relocation to accommodate mine operations can be especially heated. Grievance occurs when there is a relocation plan associated with the mine operation. Company practices also trigger grievances especially when associated with whether there is a payment for land, or relocation plan, and how much the payment is. One example in which displacement—accompanied by other grievances—is vivid is the Kwale, Kenya case. Abuya conducted a case study of social responsibility programs by the titanium mining company in Kwale. Over 300 residents were displaced because of the titanium mining project. Local communities have suffered from the loss of homes, poor health status and social and cultural risks.[81] According to Abuya, mining-related conflicts revolve around six issues, most of which are associated with grievances outside of the resource-curse framework: "land ownership; 'unfair' compensation practices; inequitable resource distribution; environmental degradation; mine-induced poverty and conflict over human rights abuses".[82] In this case, the MNCs' operational procedures fail to mitigate these issues. The mining companies in Kwale engaged in environmental malpractices. Other than environmental and displacement problems, their operational standards only comply with host countries' environmental law and are way below the international thresholds.

In this section, I discussed greed and grievances perspectives. The discussion allows for variation in state capacity and in the presence of formal participatory institutions. Nonetheless, it places substantial importance on company actions, because extraction frequently takes place in weak-state settings in the developing world, where direct company-community relations

[81] Abuya, 485.
[82] Abuya, 485.

prove important. Therefore, I bring in the concept of Corporate Social Responsibility (CSR) to explain firm behaviors at the community level. The next section provides an explanation for how CSR performances relate to social conflicts.

2.1.4 Community-level explanations – Corporate Social Responsibility

Existing literature is increasingly paying more attention to corporate strategies and their effects on social mobilizations. The literature on relations between CSR performances and social conflict is vast.[83]From the company's perspective, companies integrate CSR to describe and explain corporate-community relationships. According to Chandan and Das, CSR is "a voluntary business initiative that represents a way of managing a business in a sustainable and ethical manner to achieve the triple bottom line - financial, environmental, and social".[84] CSR has the potential to mitigate social conflicts and address grievances. Companies engage in CSR activities to address six issue areas: societal legitimacy, which illustrates firms' willingness to communicate and consult with local institutions and communities and obtain social licenses to operate; public support, which indicates firms' desire to control public opinions (for instance,

[83] E.g. Ruth V. Aguilera, Deborah E. Rupp, Cynthia A. Williams, and Jyoti Ganapathi, "Putting the S back in Corporate Social Responsibility: A Multilevel Theory of Social Change in Organizations," *Academy of Management Review* 32, no. 3 (2007): 836-863; Matthew, 31–45; Javier Arellano-Yanguas, "Aggravating the resource curse: decentralization, mining and conflict in Peru," *The Journal of Development Studies* 47, no. 4 (2011), 617-638; Dorothee Celine Cambou, "Renewable Energy in the Arctic and the Rights of Indigenous Peoples: Past, Present and Future Experiences of the Sami People," In *Law and Governance: Emerging Issues of the Polar Regions*. China University of Political Science and Law Press (2018): 291-312; Shuili Du and Edward T. Vieira, "Striving for Legitimacy Through Corporate Social Responsibility: Insights from Oil Companies," *Journal of Business Ethics* 110 (2012): 413-427; Uwem E. Ite, "Multinationals and Corporate Social Responsibility in Developing Countries: A Case Study of Nigeria," *Corporate Social Responsibility and Environmental Management* 11, no. 1 (2004): 1-11; Gabriel, 218-235; Frynas, 163-179; Francisco J. García-Rodríguez, José León García-Rodríguez, Carlos Castilla-Gutiérrez, and Silvério A. Major, "Corporate Social Responsibility of Oil Companies in Developing Countries: From Altruism to Business Strategy," *Corporate Social Responsibility and Environmental Management* 20, no. 6 (2013): 371-384; Rob Gray, "Social, Environmental and Sustainability Reporting and Organizational Value Creation? Whose Value? Whose Creation?," *Accounting, Auditing & Accountability Journal* 19, no. 6 (2006): 793-819; Abagail McWilliams, Donald S. Siegel, and Patrick M. Wright, "Corporate Social Responsibility: Strategic Implications," *Journal of Management Studies* 43 (2006): 1-18; Duane Windsor, "Corporate Social Responsibility: A Theory of the Firm Perspective: Some Comments," *Academy of Management Review* (2001): 502-504; Keith Slack, "Mission impossible? Adopting a CSR-based business model for extractive industries in developing countries," *Resources Policy* 37(2012), 179-184.

[84] Harish C. Chandan and Riturpana Das, "Evolution of responsible and sustainable corporate identity for Chinese firms," In *The China Business Model*, Chandos Publishing (2017): 76.

firms tries to use CSR as a tool to build up their social image); moral responsibility to local communities (which means, firms' operations should set the goal of not harming the local development); transparency of reporting disclosures guided by the Extractive Industries Transparency Initiative (EITI); protection of the environment; and assessment of risk-management concerns (such as mitigating or side effects including pollutions).[85] Companies engage in CSR also to mitigate social conflict and to lower the economic cost that local populations in extractive regions can impose on them through social conflict.[86]

Haslam argues that CSR practices can shape protests in communities affected by mining industries.[87] CSR initiatives focused on community relations provide individuals with more information regarding project process, thus lowering individuals' uncertainty towards project development and making people less likely to mobilize. CSR also creates institutionalized space. Its distribution of resources and material goods such as job opportunities and compensations also reduces individuals' incentive to mobilize. Overall, CSR strategies may create incentives that raise individuals' calculations of the potential cost for mobilization against the firm.[88] In other words, individuals are less likely to mobilize.

CSR publications are an important indicator for the quality of CSR performance, and potentially a powerful tool for reducing conflict. According to the framework developed by Ans Kolk and colleagues, CSR commitment level could be measured by the existence of published documents. Companies who have published documents on CSR have higher commitment rates than those who do not.[89] Whether a company has publications of CSR reports certainly could reflect how seriously it takes CSR initiatives: reports could be used as

[85] Abuya, 485-493; Benedict Y. Imbun, "The Chinese, Political CSR, and A Nickel Mine in Papua New Guinea," In *Indigenous Aspirations and Rights*, Routledge (2017): 57-70.
[86] Steinberg, 20.
[87] Haslam, 2021, 1.
[88] Haslam, 2021, 1.
[89] Haslam et al., 2018, 522-532.

records for companies to track and compare their CSR performances in different regions and at different times. Fewer reports demonstrate that the company is less organized and pays less attention to its CSR initiatives. This also indicates that the company might have a low CSR performance level.

Publications of CSR initiatives also serve as important channels for companies to release their CSR-related information.[90] Du and Vieira argue that "corporate websites have been increasingly recognized as an important and mainstream CSR reporting tool because they can provide in-depth and comprehensive information about companies' CSR practices and also allow for strategic stakeholder communication".[91] CSR initiatives that appear on company websites also serve as a communication tool between the company and its stakeholders. Stakeholders are likely to use "corporate sources", such as corporate website, to judge corporation's performance.

At a general level, past literature suggests that CSR reporting practice has been one of the most important areas in social and environmental accounting research.[92] Corporate disclosure of CSR information as a company's response to social expectations demonstrates company's legitimacy. For example, a recent report by KMPG reveals that Chinese companies are catching up with traditional leaders in European countries in the field of CSR reporting with almost 60 percent of China's largest companies reporting CSR. The example indicates that CSR reporting is an internationally recognized tool to measure company performances. Thus, publication of CSR initiatives is a crucial element of corporate transparency. It is also the formal way to disclose corporate plans. Moreover, from the consumers' perspective, it provides a way to

[90] Shuili Du and Edward T. Vieira, "Striving for Legitimacy Through Corporate Social Responsibility: Insights from Oil Companies," *Journal of Business Ethics* 110 (2012): 413-427.
[91] Du and Vieira, 416.
[92] Shidi Dong, Roger Burritt, and Wei Qian, "Salient Stakeholders in Corporate Social Responsibility Reporting by Chinese Mining and Minerals Companies," *Journal of Cleaner Production* 84 (2014): 59-69.

guarantee the company's services and promises on the lands where they operate. Web publications also could be traced and referred to in the future.

While some research emphasizes the ability of companies to preempt conflict through CSR efforts, other research has emphasized how certain types of CSR approaches in fact can cause social conflicts. Corporate-community relations "characterized by confrontations, clientelism, demobilization, or strategic collaboration" affect "the scope for influence in fundamentally different ways".[93] For example, communities' dependence on the corporation for the provision of employment opportunities and social services delivery, for instance in the form of infrastructure, can lead to two results: communities mobilize to demand more services from the corporation; or corporations pursue a strategy of clientelism strategy in which they tend to deliver cash or compensations to ease social unrests.[94]

Other than reporting, community engagement practices, environmental protection strategies, and labor practice are all important factors that reflect the quality of CSR performance. Foreign MNEs who do not employ local workers are more likely to trigger mobilizations. The presence of international companies and foreign workers produces a feeling of exploitation and resentment among the local population. These, together with foreign firms' exploitation and abuse of local labor, serve as important factors that explain social conflicts.[95]

This dissertation aims to develop a framework, identify important factors that reflect the quality of companies' CSR performance, and test the causal relationship between social conflict, on one hand, and CSR overall, as well as individual dimensions of CSR, on the other. Moreover, in the context of increasing criticisms regarding Chinese firms' operation overseas, such as their reputation of poor corporate-community relationships, the study will draw

[93] Gustafsson, 3.
[94] Gustafsson, 16.
[95] Wegenast and Schneider, 113-114.

conclusions regarding whether Chinese firms behave differently from other foreign-owned firms, and, if such a difference exists, what factors set Chinese firms apart from other companies.

2.2 Do Chinese Mining MNEs Behave Differently?

This dissertation brings together variable-based comparative work on extractive conflict and China-centered work on extraction and conflict together, to investigate whether Chinese mining firms generate more social conflicts than non-Chinese owned firms. The above review of comparative research on extractive conflict suggests that foreign ownership of a mining project is expected to be associated with conflict, and also that a company's specific country of origin may impact how it operates and the likelihood that its projects will encounter conflict. This section discusses whether there is a unique Chinese way of operation, by addressing two questions: Do Chinese firms behave differently than firms from other countries? Does the Chinese government influence the behavior of Chinese companies?

The section examines the first question through an investigation of Chinese firms' CSR practices. The literature review section suggests that firms' practices at the community level do matter. Further, inadequate CSR practices can cause social conflicts.

Next, the section examines whether Chinese SOEs generate more conflict than private-owned Chinese firms. As discussed above, scholarship on extractive conflict has found that SOEs can generate more conflict than private firms. In China, Chinese SOEs play a dominant role and maintain absolute control over major industries in China, including the mining industry, according to the Guiding Opinions on Promoting the Adjustment of State-owned Capital and the Reorganization of State-owned Enterprises by the State-owned Assets Supervision and Administration Commission of the State Council in 2006. Other guidelines

such as the Guiding Opinions of the Communist Party of China Central Committee and the State Council on Deepening the Reform of State-owned Enterprises in 2015 also suggest that SOEs are the controlling shareholder in the mining industry.[96]

China's strong authoritarian regime makes it an interesting case to study for better understanding state influence on company behavior toward communities. As the world's second largest economy, China has the largest number of SOEs in the world. From 2012 to 2021, the enterprises under the supervision of the national state-owned assets system achieved a cumulative added value of 111.4 trillion yuan (approximately U.S. $16 trillion dollars), an average annual growth of 9%— 2.3 percentage points higher than the average annual growth rate of GDP. By the end of 2021, the total assets of SOEs were 75.6 trillion yuan (approximately U.S. $11 trillion dollars), an increase of 141.1% since the end of 2012. From 2012 to 2021, the total profits of SOEs reached 15.7 trillion yuan (approximately U.S. $2.3 trillion dollars), with an average annual growth of 8%. The number of Chinese state-owned enterprises entering the world's top 500 in 2021 increased from 65 in 2012 to 96.[97] Therefore, Chinese SOEs are extreme cases of state-controlled forms, as compared to SOEs of other countries. It is thus important to investigate whether Chinese SOEs, as the extreme cases, contribute to more social conflicts.

Finally, a final section examines Chinese MNEs' activity patterns when operating abroad. The literature on activity patterns further explores specific Chinese characters and explains

[96] Pengcheng Tang, Shuxiang Yang, and Shuwang Yang, "How to Design Corporate Governance Structures to Enhance Corporate Social Responsibility in China's Mining State-Owned Enterprises?," *Resources Policy* 66 (2020): 101619.
[97] Wang Zilin, "Nearly 260 Trillion Yuan! Total Assets of State-Owned Assets and State-Owned Enterprises Increased 2.6 times in the Past Decade," www. Cnstock.com, June 18, 2022, https://news.cnstock.com/news,yw-202206-4903532.htm.

whether Chinese firms behave differently or not and whether Chinese firms contribute to more social conflict, relative to other companies.

2.3 Chinese MNEs' CSR Performances

2.3.1 History

Since its adoption in the late 1990s of the "Going Out" strategy to promote outbound foreign investments, the Chinese government has been working on improving its CSR regulatory frameworks. In 2006, China's Ministry of Environmental Protection (MEP) enacted the Provisional Measures on Public Participation in Environmental Impact Assessment. All Chinese companies follow MOFCOM's lead in terms of its commitment to respecting local populations in mining areas.

However, existing literature argues that the MEP focuses on risk mitigation and does not "empower" communities to make decisions or influence government and industry decisions. For instance, some companies (private and state owned) did not implement their proposed CSR initiatives at the community level. That is, their CSR reports appear merely to serve "window-dressing" purposes. Beyond their explicit CSR strategies, Chinese firms also have been associated with the large-scale dispatch of Chinese workers and violations of local laws, practices that affect local labor structure and the well-being of local communities and, in turn, community relations.[98]

Considering the existing shortcomings of Chinese company's CSR performance, research on CSR by Chinese scholars has moved from merely adopting Western CSR theory to exploring CSR procedures that specifically work within the Chinese environment. Given the

[98] Mimi, 2019.

differences in regime type and culture when drawing comparisons across foreign firms, Chinese firms may exhibit their own, specific characteristics. Moreover, more Chinese scholars have started to investigate the consumer response to firms' CSR performance.[99] In October 2014, the China Chamber of Commerce for Minerals, Metals and Chemicals Importers and Exporters (CCCMC), a national, industrial, non-profit social organization[100], released its "Guidelines for Social Responsibility in Outbound Mining Investments." The document, which refers to international standards such as the United Nations Security Council's recommendations and the O.E.C.D.'s framework for due diligence in supply chains, comprehensively covers a set of guidelines (which include, for example, human rights, labor issues, environment and community engagement) that strive toward "reducing operational risks and harms to the host country and promoting socially responsive behaviors."[101] The CCCMC guideline also mentions the establishment of a formal grievance mechanism to ensure timely responses to community issues. However, overall, these guidelines lack transparency and enforcement power.[102]

[99] Yi-Chun Chen, Mingyi Hung, and Yongxiang Wang, "The Effect of Mandatory CSR Disclosure on Firm Profitability and Social Externalities: Evidence from China," *Journal of Accounting and Economics* 65, no. 1 (2018): 169-190; Diane Tang-Lee, "Corporate Social Responsibility (CSR) and Public Engagement for a Chinese State-Backed Mining Project in Myanmar–Challenges and Prospects," *Resources Policy* 47 (2016): 36-37.

[100] CCCMC was established on September 1, 1988. It is a national, industrial and non-profit social organization that was formed voluntarily by units that are legally registered within China and engage in economic activities related to metal minerals and products, non-metallic minerals and products, hardware products, building materials products, petroleum and products, chemical raw materials and products, as well as upstream and downstream industrial chains in the above fields. "About CCCMC," CCCMC - China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters, accessed October 2, 2022, https://en.cccmc.org.cn/about/introduction.html.

[101] Becky Davis, "Chinese Mining Group Sets Guidelines for Overseas Interaction," *The New York Times*, October 24, 2014, https://www.nytimes.com/2014/10/25/business/international/chinese-mining-group-sets-guidelines-for-overseas-interaction.html?_r=0; Tang-Lee, 29.

[102] Rebecca Ray, Kevin P. Gallagher, Andres Lopez, and Cynthia Sanborn, "China in Latin America: Lessons for South-South Cooperation and Sustainable Development," In *China and Sustainable Development in Latin America: The Social and Environmental Dimension*, edited by Rebecca Ray, Kevin Gallagher, Andrés López, and Cynthia Sanborn, Anthem Press (2017): 23.

2.3.2 Chinese firms' CSR design

China's political regime (being authoritarian) together with its national culture (led by the Party) and its economic development path (from state control to economic liberalization) influence Chinese extractive MNCs' CSR design and might contribute to social conflict. Some scholars argue that China's unique regime influences its MNCs' CSR design strategies. They argue that Chinese MNCs' understanding of CSR, and MNCs' and their CSR design strategy reflect Chinese national culture that has strongly influenced by authoritarian governance histories and China's ethical leadership.[103] Shapiro, Vecino and Li suggest that Chinese firms are more likely than non-Chinese firms to encounter conflicts with local communities and nongovernmental stakeholders. Because of the institutional dissimilarities between China and a host country, Chinese MNCs found it difficult to transfer their organizational practices overseas.[104] Moreover, Chinese MNCs experience cultural issues. For instance, the managers of the Chinese-owned Gloden Dragon copper tube manufacturing company were not familiar with Mexican cultures and customs. They caused conflict because they required workers to work on holidays and weekends without overtime compensation. This is common in China but not in Mexico.[105]

Another important component for CSR design is the publication of CSR. As discussed above, publication of CSR initiatives is one important factor that determines the quality of a company's overall CSR performance. According to past research, lack of CSR publication could lead to social conflict. Existing studies have suggested that western companies are more

[103] Johanna Jansson, Christopher Burke, and Wenran Jiang, "Chinese Companies in the Extractive Industries of Gabon & the DRC: Perceptions of Transparency," *Centre for Chinese Studies–University of Stellenbosch/EITI/Revenue Watch* (2009).
[104] Daniel M. Shapiro, Carlos Vecino, and Jing Li, "Exploring China's State-Led FDI Model: Evidence from the Extractive Sectors in Latin America," *Asia Pacific Journal of Management* 35 (2018): 11-37.
[105] Ray et al., 19

likely to discuss their CSR on their corporate websites than Chinese firms, leading us to expect greater conflict where Chinese firms operate, due to their lack of published CSR materials.

2.3.3 CSR performance at the implementation stage

All Chinese firms—both state-owned and private—are significantly controlled by the Chinese government. Chinese SOEs follow the policy and regulatory framework provided by the central government. Chinese national and subnational government monitor CSR compliance of both SOEs and private enterprises.[106] Past research suggests that Chinese firms lack the flexibility needed to implement context-appropriate CSR strategy.[107] Chinese firms in this way potentially would perform worse in terms of CSR implementation than SOEs from other countries. In China, SASAC provides guidelines that are not legally binding; firms thus have the possibility to induce problems at the CSR implementation stage. Because their poor performances, such as dumping industrial wastes, would not be published by the state.

Scholars have surmised that Chinese firms receive more community resentment compared to other foreign-owned firms.[108] One factor that contributes to this resentment is that many governments welcome Chinese investment. This circumstance can be found in Latin America, Central Asia and Africa. Ecuador's former president Rafael Correa supported Chinese mining activities and welcomed foreign investments more generally. Chinese investments took a lead role in fulfilling Ecuador's government's economic development goals. An estimated US $17.4 billion Chinese capital had been the main sources of borrowing and investment for the

[106] Chandan and Das, 71-96.
[107] Chandan and Das, 82.
[108] Christian Lowe, "Expansive China faces grass-roots resentment," *Reuters,* August 21, 2009, https://www.reuters.com/article/us-friction-china-investment/expansive-china-faces-grass-roots-resentment-idUSTRE57H00220090821; Murat Arsel, Barbara Hogenboom, and Lorenzo Pellegrini, "The Extractive Imperative in Latin America," *The Extractive Industries and Society* 3, no. 4 (2016): 880-887; Ilya Jones, "Perceptions of Chinese Investments in Kyrgyzstan," In *Securitization and Democracy in Eurasia: Transformation and Development in the OSCE Region*, Cham: Springer International Publishing (2022): 299-312; Yaroslav Trofimov, "In Africa, China's Expansion begins to Stir Resentment," *Wall Street Journal* 2 (2007); Wegenast et al., 2017.

Ecuadorian government. Chinese firms fund 3 out of Ecuador's 5 most important mines. Tensions were created because the Ecuadorian government supported Chinese mining activities through physical force and political manipulation. For example, Chinese consortium CRCC-Tongguan owns the Mirador and Panantza-San Carlos open-pit copper mines. The Chinese mining operations caused the displacement of 116 Indigenous people and harmed the environment along the Amazon River. The Ecuadorian government did not punish Chinese MNCs for their major human rights and environmental abuses. Indigenous communities around the mining operations have expressed great resentment towards Chinese investment and Chinese companies and have organized multiple mobilizations.[109]

Beyond Latin America, Chinese MNCs' operations are also supported by the Kyrgyzstan government. The Ishtamberdy gold mine project, in Kyrgyzstan, was incorporated into the Chinese Belt and Road Initiative. The Kyrgyzstan government sees the project as an opportunity to bring economic benefits to the country.[110] Local communities mobilized against the host government for permitting MNCs to operate in the country. The Chinese company Full Gold Mining had to halt their work in Kyrgyzstan during November 2020 due to a nation-wide protest following the country's parliamentary elections. As the protest moved from the capital to small towns and villages, the focus of activists changed from alleging election fraud to opposing the presence of all Chinese MNCs in the country.

Beyond this reputation of Chinese economic influence and associated public resentment, Chinese firms damaged local environments and local livelihoods also presumably has worsened their relations with communities. For instance, Chinese MNC CRCC-Tongguan's

[109] Max Nathanson, "Indigenous Communities Resist Chinese Mining in Amazonian Ecuador," *Mongabay*, September 5, 2017, https://news.mongabay.com/2017/09/indigenous-communities-resist-chinese-mining-in-amazonian-ecuador/.
[110] Bakyt Ibraimov and Jalil Saparov, "Gold Mining at Heart of Recent Kyrgyz Political Turmoil," *The Third Role*, February 22, 2021, https://www.thethirdpole.net/en/pollution/gold-mining-at-heart-of-recent-kyrgyz-political-turmoil/.

practices have generated negative environmental impacts which affect locals' access to water at the Mirador copper mine site in Ecuador. Locals also protested because the company evicted them from their homes.[111] Zhong Ji Mining Company began exploration in 2009 for its Kyrgyzstani Solton-Sary gold mine, which began operating in 2012. On August 5, 2019, 300 locals gathered around the mine to protest the company's operation.[112] Locals claimed that mining activities had resulted in local environment contamination. The most obvious sign of that damage was the deaths of livestock. Though the state inspections found that the deaths were not related to mining operations, and the company agreed to pay compensation for the deaths, locals insisted on protesting and wanted the company's equipment removed from their properties.[113] Full Gold Mining's operations at the Ishtamberdy gold deposit in Kyrgyzstan, starting in 2008, serve as another case. The company has been accused of and inspected by the government for violating environmental laws and disposing of hazardous wastes. The company is also involved in disputes of mistreating local workers.[114] For instance, in 2018, the company fired 370 Kyrgyz employees because they refused to accept a lower salary.[115]

There are also examples that illustrate Chinese firms' lack of concern for local development. ExplorCobres S.A. (EXSA), a subsidiary of the Chinese company Ecuacorriente S.A. (ECSA) started the San Carlos-Panantza copper project in Ecuador in 2012. The company halted the project in 2018 due to a dispute with the Shuar Indigenous community. The community filed a lawsuit against the project and asked for compensation from the company because it was being

[111] Ning Hui, "How Local Communities Halted a Chinese-Owned Gold Mine in Ecuador," *China Dialogue*. July 5, 2019, https://chinadialogue.net/en/business/11358-how-locals-halted-a-chinese-owned-gold-mine-in-ecuador/.
[112] Umberto Bacchi, "Kyrgyzstan Halts Work at Chinese Gold Mine after Clashes," *Reuters*, August 7, 2019, https://www.reuters.com/article/us-kyrgyzstan-protests-mining/kyrgyzstan-halts-work-at-chinese-gold-mine-after-clashes-idUSKCN1UX200.
[113] Catherine Putz, "Tensions Flare at Kyrgyz Gold Mine," *The Diplomat*, August 7, 2019, https://thediplomat.com/2019/08/tensions-flare-at-kyrgyz-gold-mine/.
[114] "Chinese Mining Company Affected by Protests in Kyrgyzstan Has Ties to Major SOE," *Sayari*, December 3, 2020, https://sayari.com/resources/chinese-mining-company-affected-by-protests-in-kyrgyzstan-has-ties-to-major-soe/.
[115] Ibraimov and Saparov, 2021.

forced to relocate.[116] Local community leaders also wrote a letter to Chinese authorities regarding ExplorCobres' operations.[117] Residents in El Alto, Peru, protested against the China National Petroleum Corporation (CNPC)'s offshore oil operation, due to complaints that the company had not fulfilled its commitments to local development. CNPC also broke its promise to provide job opportunities to young people.[118] The Ministry of Energy and Mines (Minem) in Peru facilitated the dialogue between CNPC and the local representatives.[119] Agreements were signed between the two sides to reach district development goals. For instance, participants committed to resolving labor problems and environmental issues.

Scholars argue that Chinese MNCs bring to their overseas operations mining practices from their home country, such as ignorance of labor rights, and poor maintenance of working conditions. This behavior further contributes to poor community relations abroad. Studies have shown that compared to the U.S. companies, Chinese firms' performance overseas is affected by the weak resource regulatory framework in China, which lacks strong protections for workers.[120] Accustomed to the abuse of the labor force and poor working conditions that are common in China, and focused solely on generating revenue, Chinese mining firms do not invest in local communities or employees' well-being.[121] The outcome is that communities in many African states such as Angola, Cameroon, Kenya, Mozambique, Niger, Nigeria,

[116] Valencia Alexandra and Brian Ellsworth, "Strife with Indigenous Groups could Derail Ecuador's Drive to be A Mining Power," *Reuters*, December 10, 2020, https://www.reuters.com/article/ecuador-mining-focus/strife-with-indigenous-groups-could-derail-ecuadors-drive-to-be-a-mining-power-idUSKBN28K1TU.
[117] Shuar Arutam, "Ecuador: Local Communities Continue to Oppose Mining Projects in Ecuadorian Amazon backed by Chinese Companies," *Business and Human Rights Research Center*, May 31, 2018, https://www.business-humanrights.org/en/latest-news/ecuador-local-communities-continue-to-oppose-mining-projects-in-ecuadorian-amazon-backed-by-chinese-companies/.
[118] Reuters Staff, "Building Set on Fire in Protest Against China's CNPC in Peru," *Reuters*, August 16, 2019, https://www.reuters.com/article/us-peru-cnpc/building-set-on-fire-in-protest-against-chinas-cnpc-in-peru-idUSKCN1V700R.
[119] Bnamericas, "Minem Facilitates Successful Dialogue and Definitive Agreements Between the Population of El Alto and the CNPC Oil Company," *Bnamericas*, September 24, 2019, https://www.bnamericas.com/en/news/minem-facilitates-successful-dialogue-and-definitive-agreements-between-the-population-of-el-alto-and-the-cnpc-oil-company.
[120] Amos Irwin and Kevin P Gallagher, "Chinese Mining in Latin America: A Comparative Perspective," *The Journal of Environment & Development* 22, no. 2 (2013): 207–234.
[121] Janson et al., 2009.

Tanzania, Zambia, Zimbabwe and resent Chinese mining companies, because of their low environmental standards and violations of domestic labor laws.[122]

Research suggests that Chinese MNCs do tend to generate significant labor issues, and more so than other firms. For example, the African Labor Research Network (2009) found that Chinese firms across African countries and industries have tense labor relations with local employees and are often associated with labor rights violations and poor working conditions.[123] The United Kingdom-based Rights and Accountability in Development (RAID)'s 2009 report on Chinese mining operations in the Katanga region of the Democratic Republic of Congo found that Chinese firms perform worse than competitor companies from the U.S. and Europe in the realm of labor practices. The report also indicates that Chinese firms do not comply with the Congolese mining code or other kinds of laws and regulations.[124]

Another source of discontent among populations located close to Chinese mining projects is that Chinese firms are well-known for hiring Chinese employees, a practice that has a "detrimental" effect on local employment. Chinese firms import more foreign labor than Western firms. In Africa, Chinese MNEs generally use imported and subcontracted labor. For instance, foreign labor makes up 77.8% of the workforce in the gold mining industry in South Africa. [125] These Chinese firms enjoy competitive advantage by employing Chinese workers, which are low-skilled and do not speak local languages. Chinese labor costs are lower, and the expatriation management system is centralized and collective, which enables "a pool of disciplined and hardship-tolerant workers.[126] Mining MNEs in African countries such as South

[122] Wegenast and Schneider, 113.
[123] "You'll be Fired if You Refuse - Labor Abuses in Zamina's Chinese State-Owned Copper Mines," *Human Rights Watch*, November 3, 2011, https://www.hrw.org/report/2011/11/04/youll-be-fired-if-you-refuse/labor-abuses-zambias-chinese-state-owned-copper#; Dan Haglund, "Regulating FDI in Weak African States: a Case Study of Chinese Copper Mining in Zambia," The Journal of Modern African Studies 46, no. 4 (2008): 547–575.
[124] "You'll be Fired if You Refuse," 2011.
[125] Wegenast and Schneider, 113-115.
[126] Wegenast et al., 40.

Africa, Nigeria, and Zambia have been widely criticized for employing expatriates at the expense of local labor.

Chinese firms have also been criticized in Latin America for ignoring local regulations. Companies who respect community rights and needs, and act according to domestic regulations and international norms are expected to treat communities better. But in some cases, local governments do not enforce their own laws.[127]

2.3.4 Challenging past literature - Are Chinese firms different?

In contrast to these criticisms of Chinese company operations abroad, some scholars argue that there is no clear "Chinese way" of doing business. Though Chinese governments are encouraging MNCs to improve and comply with CSR standards, MNCs still have the discretional power to exercise CSR in their favor in the host country, given CSR's voluntary nature. And Chinese firms may adjust their CSR strategies over time, as well: some scholars argue that globalization intensifies the tensions and cultural differences, and thus CSR should adapt to local practices and address local diversity.[128] Indeed, Chinese firms' performances do vary on the ground. As Sanborn argues, community conflicts are more likely caused by companies' management strategies than companies' nationality.[129] For instance, the Chinese state-owned mining company Shougang has infamously terrible labor relations with their local employees when operating in Peru. It has taken hardline approaches toward employees and has responded negatively to union negotiations. The company has a record of not complying with Peruvian environmental regulations. These actions on the part of the company have resulted in

[127] Ray et al., 14.
[128] Lu Tang and Hongmei Li, "Corporate Social Responsibility Communication of Chinese and Global Corporations in China," *Public Relations Review* 35 (2009): 199-212.
[129] Cynthia Sanborn and Victoria Chonn Ching, *Chinese Investment in Peru's Mining Industry: Blessing or Curse?* London: Anthem Press, 2017, 47.

social conflicts.[130] Nevertheless, because the Peruvian government was weak in enforcing norms, other MNCs from other countries also perform poorly when it comes to community relations.[131]

Also, because Chinese state policies (namely, BRI) have generated an increase in Chinese-financed mining projects, more Chinese conflicts would be expected to appear. BRI has an open-ended nature. Almost every investment and trade agreement can fall under this initiative if the government claims that it qualifies.[132] In short, the increasing number of conflicts associated with Chinese companies does not necessarily links to Chinese MNCs' overall bad performances.

The present research seeks to identify trends in Chinese firm practices and associated conflict, through quantitative analysis. However, an example of a successful CSR case and an inadequate CSR case that had led to social conflict illustrate stark variation that exists across Chinese foreign extractive endeavors.

The case of Chinese companies' activities at the Andes Petroleum oil field in Ecuador demonstrate what a successful CSR strategy should look like. In 2007, CNPC and Sinopec (China Petroleum & Chemical Corporation) purchased the Canadian firm Encana, which had been confronting protests from the locals due to environmental issues and other matters related to community well-being. The Chinese companies shouldered CSR directly after their purchase.[133] Due to the legacy of poor corporate-community relations, the firms reached out to community members to improve relations. The companies "sent deputies to visit local tribal

[130] Sanborn and Ching, 35-36.
[131] Sanborn and Ching, 37-38.
[132] Farooki, 8.
[133] Xu Ying, "The Interaction Between Ecuadorian NGOs and Chinese Enterprises in Ecuador: Toward Better Corporate Social Responsibility," In *China and Latin America in Transition: Policy Dynamics, Economic Commitments, and Social Impacts*, New York: Palgrave Macmillan US (2016): 243-256.

chiefs, listening to what they had to say and explaining to them that CNPC projects could improve the lives of local inhabitants."[134] The companies developed their CSR strategy with Ecuadorian NGOs and local governments. The strategy included proactive participation in community development such as infrastructure building projects and welfare programs, and consultation with Indigenous groups. CNPC and Sinopec also focused on providing training for local workers. Moreover, the companies advanced technologies in preventing pollution and process disposals. [135] The comprehensive CSR strategies at both the planning and implementation stages prevented social conflict. The companies successfully addressed local concerns with an appreciation of local values and culture, and the oil field operated smoothly.[136] This case illustrates that a comprehensive, effective CSR strategy considers local workers' well-being, addresses environmental issues, and takes local voices into consideration.

In contrast to the Andes Petroleum case, inadequate CSR performance can lead to social conflict. The Ecuadorian Rio Blanco mine reflects this point. After its transfer from a British firm to a Canadian company, the Rio Blanco gold mine is now owned by Hong Kong's Junefield Mineral Resources and Hunan Gold Corporation Mining. The two Chinese MNCs bought the site in 2013 and received the license to operate in 2015. Operations started in April 2018.[137] Opposition has been strong since then. Protests began with a small-scale community-wide blockade and expanded to large-scale protests, throughout Cuenca and other nearby cities. According to the locals around the Rio Blanco project area, the Canadian firm sent some consultants to the community to meet with residents, but the visit did not prove fruitful. The Chinese firm did not conduct any community engagement activities.[138] Locals from the project

[134] Ying, 248
[135] Ying, 249-250.
[136] Ying, 252.
[137] Ning Hui and Andrés Bermúdez Liévano, "An Investigation Into Two Chinese Mines in the Ecuadorian Amazon," Pulitzer Center, July 9, 2019, https://pulitzercenter.org/id/node/4874.
[138] Hui and Lievano, 2019

area said that they had never seen a Chinese expert negotiating with them: "they don't care about what we have to say."[139] The locals also said that they had never heard of prior consultation or FPIC. The companies do not have a formal CSR report on their website. The Chinese MNCs created a negative corporate image as soon as they arrived. The sudden appearance of many foreigners raised uncertainties among community members. Locals did not trust the MNCs' promises of bringing benefits to the community; many of them were not familiar with potential benefits of a gold mine. The promises were then not fulfilled. Without further community engagement or prior consultation activities, locals' distrust was reinforced. The distrust increased when locals witnessed mining activities' negative environmental impacts: road appropriation, environmental degradation, and the disposal of mine pollutants.[140]

In sum, the Chinese company's on-the-ground CSR performance was poor. Protests from the local community directly targeted companies' inadequate behaviors and their absence of CSR activities. Without community engagement strategies, distrust appeared at the very first stage among community members. Locals targeted the company also because they witnessed the negative social and environmental impacts directly generated from the company.

The above section discusses the various factors that influence the quality of Chinese mining MNEs' CSR performances. The quantitative analysis at the core of the research tests the following hypotheses.

H1: Chinese mining MNE operations confront more conflict than projects financed by firms from other countries.

[139] Hui and Lievano, 2019
[140] Hui, 2019.

H1 (a): Chinese mining MNEs have worse CSR practices than other foreign firms.

2.3.5 Chinese SOEs

The literature has discussed whether Chinese SOEs generate more conflict, relative to Chinese private-owned firms. To explore whether this is the case, it is valuable to introduce the history and background of Chinese firm structures and the substantial influence of the Chinese government in mining, including in both the dominant SOE sector and the smaller but expanding private sector.

The Chinese government influences companies' behaviors in various ways through direct or indirect control such as through policies and financing. Different types of Chinse firms are more or less affiliated with the state. There are three types of Chinese firms: SOEs controlled by the central government, local government controlled SOEs, and private companies. The Chinese government plays a prominent role and takes the ultimate control of both SOEs and private investors. Both SOEs and private firms are guided by state regulations and guidelines (at the national and central government levels).

From 1949—when Mao Zedong rose to power through the Chinese Revolution—until 1979, almost all enterprises in China were state-owned. Deng Xiaoping's liberal reform strategy started in 1978. The strategy legalized private enterprises, though SOEs still dominated the economy. Until today, SOEs have monopolies over particular strategic industrial sectors such as natural resource extraction. For example, the state backs SOEs to engage in both domestic and overseas investment projects in the oil and gas sector. The state provides strong support to SOEs, for instance in the forms of preferential loans, subsidies, and lower rates of taxation. The Chinese Ministry of Commerce (MOFCOM) suggests that from January to July 2021,

Chinese firms invested around RMB 73.07 billion in 56 countries along the Belt and Road.[141] SOEs dominate most of these projects, though private sector participation has also grown steadily.[142]

Over the years, SOEs have gradually changed their operating strategies due to waves of economic reforms. The reconstruction of SOEs is guided by the concepts of "modern management" and "mixed ownership economy". Nevertheless, SOEs have less discretional power when compared with private enterprises. The State Council supervises China's central SOEs. SOEs' senior company leadership is appointed by the Party. According to China's Minister of Industry and Information Technology, "a large number of operational matters that should be left to SOEs to decide are still subject to the approval of the government." In China, all central SOEs are managed by the State-owned Assets Supervision and Administration Commission (SASAC). SASAC manage companies under the Chinese government's State Council (the highest executive authority that responsible for the state's administration). In this way, SOEs directly link to the central government. SASAC now is trying to develop central SOEs into top global multinationals.

Past research also suggests that China's SOEs tend to invest in areas that are strategically important to Chinese government rather than areas that generate economic profits. Scholars also argue that Chinese SOEs have a higher tendency to invest in countries where the state is weak (as the resource curse theory suggests, weak states are states with less democratic level, higher dependence on extraction and lower state wealth). In these countries, Chinese SOEs

[141] MOFCOM, "China's Investment in Countries along the Belt and Road from January to July 2021," *Ministry of Commerce People's Republic of China*, August 31, 2021, http://english.mofcom.gov.cn/article/statistic/foreigntradecooperation/202111/20211103217282.shtml.
[142] Shunyu Yao and Jason Holden, "Chinese foreign mining investment — China's private sector eyes low-cost regions," *S&P Global*, March 12, 2021, https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/chinese-foreign-mining-investment-8212-china-s-private-sector-eyes-low-cost-regions-63066809/ .

enjoy competitive advantage over foreign firms, because Chinese firms are more familiar with a highly regulated business environment with the authoritarian government. Chinese state-owned MNEs enjoy access to low-cost capital and labor.[143] Existing research suggests that SOEs enjoy preferential status in obtaining bank loans. SOEs rely more on government – to – government cooperative relationship as a basis for their decision-making process regarding resource extraction.

The tradeoff for SOE linkages to the Chinese state is a loss in autonomy. Compared with private-owned corporations, large state-controlled SOEs have less discretionary power in China. Relative to SOEs, private firms are more flexible and have a greater role in choosing operational locations, precisely because they rely less on the central government.[144] Private firms are more risk averse and tend to provide more social services because their financing and project locations are not as certain without Chinese government backing and arrangements with foreign governments.[145]

H1 (b): Chinese SOEs, being closer to the Chinese government and more influenced by Chinese government's decisions, have less discretional power, are more likely to confront conflict than Chinese private firms.

2.3.6 EM MNEs: Explaining Chinese MNEs' Activity Patterns

The International Business (IB) literature, and especially research on Emerging Market Multinational Enterprises (EM MNEs), engages the questions of whether Chinese firms behave differently than other firms and if so, why. The present discussion addresses these questions as

[143] Gilbert Kofi Adarkwah and Tine Petersen Malonæs, "Firm-Specific Advantages: A Comprehensive Review with a Focus on Emerging Markets," *Asia Pacific Journal of Management* (2020): 1-47.
[144] Mark Grimsditch, "The Role and Characteristics of Chinese State-Owned and Private Enterprises in Overseas Investments," *Friends of the Earth United States* (2015): 11.
[145] Grimsditch, 11.

well as whether home government more generally influences company behavior in predictable ways.

The concept of emerging markets was first introduced in 1981 by the International Finance Corporation (IFC) as part of the promotion of the first mutual fund investments in developing countries. Luo and Tung define EM MNEs as international companies that originated from emerging markets (for instance China); are engaged in outward FDI; have effective control of their international activities; and focus their international expansion on value-adding activities.[146] The definition covers large MNEs from emerging markets as well as small and medium enterprises, such as born-global companies or international entrepreneurial firms. Born-global companies are business organizations that seek to "derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries."[147] For instance, Chinese companies such as Huawei and Lenovo started by targeting the Chinese domestic market. In contrast, the drone company DJI started out by targeting the international market: DJI has 70 percent of the global market share. In this case, DJI can be considered as a born-global company, because it was global since its establishment.[148] [149]

For EM MNEs, Firm Specific Advantages (FSAs) determine their success in foreign markets. FSAs include privileged access to information, raw materials, distribution channels, superiority in (digital) technology and brands, and superior corporate governance and organizational culture.[150] According to Dunning's eclectic paradigm, the motivations behind

[146] Luo and Tung, 129-152.
[147] London Business School Review. "Born Global." *London Business School*. December 1, 2008. https://www.london.edu/think/born-global#:~:text=Classically%2C%20born%20globals%2C%20or%20international,of%20outputs%20in%20multiple%20countries%E2%80%9D.
[148] Yao Nian, "WEF Expert: China's New Start-Ups are Born Global," *CGTN*, September 20, 2018, https://news.cgtn.com/news/3d3d674e334d7a4d7a457a6333566d54/share_p.html.
[149] Bala Ramasamy, Matthew Yeung, and Sylvie Laforet, "China's Outward Foreign Direct Investment: Location Choice and Firm Ownership," Journal of World Business 47 (2012): 18.
150 Adarkwah and Malonæs, 1-47.

foreign investments are market, efficiency, and resource seeking. EM MNEs exploit the comparative advantages of their home country: natural resources and access to cheap labor and capital. EM MNEs develop FSAs to operate more effectively than local firms. For instance, the diaspora community provides Chinese EM MNEs with easier access to market information. Also, EM MNEs develop FSAs through CSR initiatives when operating in countries with high political risks (for instance, a country with an unstable government). CSR initiatives provides EM MNEs with intangible resources through specific strategies targeting at corporation management and corporation-community relations.[151]

FSAs help explain EM MNEs' behaviors within host countries. For example, work on multinationals suggests that the particular evolution of Latin American EM MNEs gave them a unique set of "ownership specific advantages" (such as ability to extract resources in unstable economic environments), and certain management characteristics which have implications for their behavior and strategies. More specifically, Latin American EM MNEs have experience dealing with corrupt governments, weak institutions, and cumbersome bureaucracy at home. This kind of experience turns into competitive advantages when they operate abroad.[152]

FSAs offer a lot of potential for understanding why Chinese firms could behave differently as compared to non-Chinese firms. On the one hand, Chinese firms enjoy specific ownership advantages. First, the Chinese government encourages Outward Foreign Direct Investments (OFDI). The IB literature suggests that home government support and the home country's institutional environment make all EM MNEs competitive players in the global market. The Chinese government encourages Chinese MNEs to develop abroad. Moreover, the Chinese government supports EM MNEs by providing related guidelines for their operations abroad. In

[151] Adarkwah and Malonæs, 10-23.
[152] Adarkwah and Malonæs, 23-38.

this way, Chinese MNEs hold competitive advantages with this strong support in the global market. Second, the ethnic and family networks that are prevalent in China serve as a source of FSAs for Chinese MNEs. Third, Chinese state-owned firms enjoy specific advantages. Researchers argue that state ownership and government policy promote EM MNEs' foreign expansion. Firms' political connections with their home government help them gain competitive advantages through access to government-controlled resources. The Chinese government serves as a central "contractor" that represent interests of all firms. Chinese state support for its enterprises also serves as a kind of bargaining advantage, whereas host governments are less likely to regulate Chinese firms or increase royalties and taxes, because they fear the consequences of alienating China (i.e., lost investment if the host country is a BRI country, other lost economic opportunities, foreign aid, etc.).[153] In contrast, Western firms did not rely that much on home governments.

On the other hand, Chinese MNCs also experience specific disadvantages when it comes to on-site management. Besides political features, scholars argue that with China's historical development trajectory and its own economic development path, China is a late comer to the global business world. China is a new player and did not have colonial connections in many areas like the western powers did. Most Chinese stakeholders are at a disadvantage in terms of market access, accessibility of operational sites, and understanding the operating environments.[154] As a late comer, Chinese MNCs enter markets where political risks are high and thus are more likely to trigger domestic conflicts around extractive projects then foreign-owned corporations.[155] Chinese MNCs' operations might add additional concerns to people

[153] Theodore H. Moran, ed., *Managing international political risk*, Blackwell, 1998. Theodore Moran's obsolescing bargain once addressed World Bank/IMF co-financing as a way of increasing the bargaining advantage for firms, by ensuring that if they nationalized a particular project, they'd alienate future streams of World Bank funding.
[154] Jansson et al., 2009.
[155] Juelin Yin and Yuli Zhang, "Institutional Dynamics and Corporate Social Responsibility (CSR) in An Emerging Country Context: Evidence from China," *Journal of Business Ethics* 111 (2012): 301-316.

from these areas with high political risks. In this way, Chinese MNCs are increasingly become the direct social mobilization targets.[156]

H1 (c): Chinese mining MNEs often operate in politically risky countries (countries that have high levels of social unrest and political tensions), where the context is more prone to conflict.

The second set of hypotheses will be tested after investigating whether Chinese firms are different or not. The hypotheses were tested in the order is because the primary concern for this dissertation is whether Chinese firms generate more social conflicts, as previous research has suggested. Therefore, this study first tests whether Chinese mining MNE projects confront more conflicts than projects financed by firms from other countries. It then asks, if there is not a Chinese specific problem, then what contribute to social conflicts? The literature indicates that firm practices matter.

The second set of hypotheses is as follows:

H2: Firms' CSR performance is associated with variation in conflict. Five factors reflect the quality of firms' CSR performance: CSR publication, community engagement practice, strategies for environmental protection, labor practice, and whether there is content on its website or publication that describes/talks about CSR in the local language where the company operates.

H2 (a): Firms with poor CSR publication confront more social conflict.

H2 (b): Firms with poor community engagement practices confront more conflict.

[156] Magnus Ericsson, Olof Löf, and Anton Löf, "Chinese Control Over African and Global Mining—Past, Present and Future," Mineral Economics 33, no. 1 (2020): 153-181.

H2 (c): Firms with poor strategies for environmental protection confront more conflict.

H2 (d): Firms with poor labor practices confront more conflict.

H2 (e): Firms without content on their website or publication that describes/talks about CSR in the local language where they operate confront more conflict.

H2 (f) - Firms with more legacy failures contribute to more conflict.

Chapter 3 Research Methodologies and Measurement Strategies

Prior to this research, there has not been a large-*n* quantitative test in the existing literature on Chinese mining firm behaviors. Qualitative studies of a small number of case studies offer comprehensive description and analysis of the set of cases. However, it is also necessary to test the "validity and generalizability"[157]of hypotheses using large-number quantitative strategies. This project asks whether Chinese firms are different or not, and which characteristics—at the country, company, and/or community levels—contribute to conflict.

3.1 Dependent Variable and Data Source

3.1.1 Measuring conflicts

My dependent variable is the existence of social conflict among communities located close to extractive companies' operations. The existence of social conflict was found through manual data collection.

For this dissertation, I first identify whether a mining project is associated with a social conflict. The unit of analysis is the mining project. I have a collection of 1001 mining projects worldwide from 2009 to 2019. The data source for the projects was collected from Infomine. The data file covers projects from Asia, Africa, Europe, Middle East, North America, Oceania, and South America. I included all projects at advanced exploration stage and above ("Development Status").

My dependent variable **conflict** (both nominal and binary) indicates the existence of social conflict. A score of 0 indicates there is no known social conflict associated with a company

[157] Haslam and Tanimoune, "The determinants of social conflict in the Latin American mining sector: new evidence with quantitative data," World Development 78 (2016): 402.

while a score of 1 indicates known social conflict exists. Conflict here is considered as known conflict, while known means that the information of this conflict is public.[158] To obtain the information of whether a project has known conflict or not, I used Google search as a tool and l looked for publicly reported conflicts associated with each project. My primary sources are news reports online and reports/articles published by civil-society organizations. These sources reflect that conflicts have raised social awareness.[159]

Below in Table 3.1 I list the sources for mining conflict. The environmental justice atlas (EJAtlas) lists social conflict around the globe related to extractive activities. The map includes the reasoning and backstories that were collected from communities regarding the conflict. EJAtlas maps the conflicts and has been identified as a reliable source by other researchers. The maps categorize conflict. Conflicts relate to mining is one category.[160] For Latin America, the Observatory of Mining Conflicts in Latin America (OCMAL) produces a database on mining conflicts. OCMAL also contains information on conflicts and the associated projects and major actors.[161] I used the Social Conflict Analysis Database (SCAD) to search for conflicts in Africa. SCAD includes "protests, riots, strikes, intercommunal conflict, government violence against civilians, and other forms of social conflict not systematically tracked in other conflict datasets." The dataset covers information during 1990–2017 for all of Africa.[162] The Central Asia Protest Tracker (CAPT) maps conflicts from January 1, 2018, to

[158] Haslam et al., 528-549.
[159] See Appendix A for an example for how I located conflict for a sample project – the Baluba Center mine project.
[160] Leah Temper, Daniela Del Bene, and Joan Martinez-Alier, "Mapping the Frontiers and Front Lines of Global Environmental Justice: The EJAtlas," *Journal of Political Ecology* 22 (2015): 255-278.
[161] "Observatory of Mining Conflicts in Latin America," OCMAL, accessed October 1, 2022, https://www.ocmal.org/ocmal/#actividades-herramientas.
[162] Idean Salehyan, Cullen S. Hendrix, Jesse Hamner, Christina Case, Christopher Linebarger, Emily Stull, and Jennifer Williams, "Social Conflict in Africa: A New Database," International Interactions 38 (2012): 503-511. The dataset was found from: Darin Christensen, "Concession Stands: How Mining Investments Incite Protest in Africa," *International Organization* 73 (2019): 66.

August 31, 2020, across five Asian Republics: Kazakhstan, Kyrgyzstan, Tajikstan, Turkmenistan, and Uzbekistan.[163]

Table 3.1 List of Source Materials for Social Conflict

Source	Website	Scale	Access	Cost
EJAtlas	https://ejatlas.org/country	Worldwide	Yes	Free
OCMAL	https://mapa.conflictosmineros.net/ocmal_db-v2/	Latin America	Yes	Free
CAPT	https://oxussociety.org/viz/protest-tracker/	Central Asia	Yes	Free
SCAD	https://www.strausscenter.org/ccaps-research-areas/social-conflict/database/	Africa	Yes	Free
Google	https://www.google.com/	Worldwide	Yes	Free

This approach to measuring conflict is reliable because "civil society organizations remain the best sources for approximating the universe of publicly known mine-community conflicts."[164] This research does not consider the time frame or the extent of a conflict. I only consider the existence of a conflict; thus, I also include those conflicts that have been resolved.[165]

I developed a unique measure of social conflict. Firm-community social conflict relates to the literature on contentious politics, which "considers a wide range of social actions characterized by observable participation of individuals in collective action, claims upon authority that threaten powerful interests and publicness."[166] To be more comprehensive, I score as conflict all types of collective action that I located, including for example blockades, violence, protests, mobilization, legal battles, and riots.

3.1.2 Measuring grievances

[163] "The Central Asia Protest Tracker," *The Oxus Society for Central Asian Affairs*, accessed October 13, 2022, https://oxussociety.org/viz/protest-tracker/.
[164] Haslam and Tanimoune, 406.
[165] Haslam and Tanimoune, 406.
[166] Haslam et al., 402.

I manually checked the geographical coordinates for all the projects. Data were collected from a cross reference of the USGS Mineral Resource Data System (MRDS), the Bloomberg, the Mindata.org, Global Energy Monitor Wiki, mining companies' websites, and Google Map.[167] Then, I used GIS software to produce a map of all mining projects worldwide. Projects associated with social conflicts are highlighted on the map as a separate category. Conflicts associated with Chinese firms are highlighted on the map as another separate category.

To account for local grievances that contribute to conflict, I map geographical layers including water risk levels and evaluate any relationship between these factors and social conflict. To do this, I found the geographical coordinates of each mining project and combined those data with data about water risk, a measure of grievances. The aim of this measure is to evaluate how threatening a mine would be to a community, for example, based on whether there is water scarcity near a project.

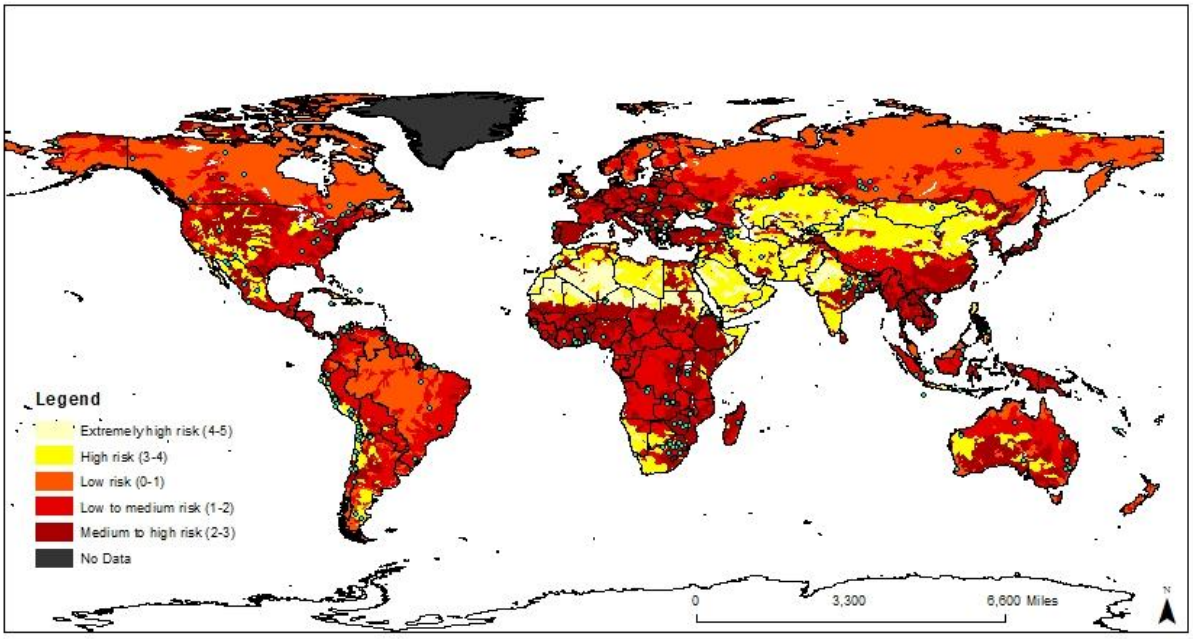
Aqueduct Global Map 2.1 data includes indicators for water risk around the globe. The data source measures the degree of water scarcity in the area of project. The water risk data consolidates and considers baseline water stress, inter-annual variability, seasonal variability, flood occurrence, drought severity, upstream storage, groundwater stress, return flow ratio, upstream protected land, media coverage, access to water, and threatened amphibians.[168]

[167] "Mineral Resource Data System (MRDS)," *USGS*, accessed October 13, 2022, https://mrdata.usgs.gov/mrds/. According to the website: "MRDS is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references." Bloomberg is searched by companies, so if I type a company's name, the system will generate all projects it has. Companies around the globe are available. According to its web introduction, Mindat.org is one of the world's leading authority on minerals and their localities, deposits and mines worldwide: "Mindat.org," *mindat.org*., accessed October 1, 2022. https://www.mindat.org/a/about; Global Coal Mine Tracker contains a worldwide dataset of coal mines: "Global Coal Mine Tracker," *Global Energy Monitor*, accessed October 15, 2022, https://globalenergymonitor.org/projects/global-coal-mine-tracker/. The most recent update of the database is in July 2022.

[168] Francis Gassert, Matt Landis, Matt Luck, Paul Reig, and Tien Shiao, "Aqueduct Global Maps 2.1.," *World Resources Institute*, 2014, https://www.wri.org/data/aqueduct-global-maps-21-data.

Water risk degrees can be found for each project based on project coordinates. The five categories for water risk are: no data; low risk (0-1), low to medium risk (1-2), medium to high risk (2-3), high risk (3-4), extremely high risk (4-5). I created the water risk variable, which scores from 0 to 5 based on the five categories (See Figure 3.1). I then ran a logistic regression to test whether water risk is associated with the existence of social conflicts.

Figure 3.1 Degree of water scarcity in area of project with mining conflict[169]



3.2 Independent Variables and Data Source

3.2.1 Firm characteristics: ownership and size

This research first identifies whether a firm is a foreign-owned firm or a domestic firm (Domestic firm = 0; Foreign firm = 1). It then identifies whether a firm is a privately owned

[169] Created by the author using ArcMap software.

firm (be it listed on the stocked market or held privately) or a state-owned firm (majority/minority) (Private firm = 0; Public firm = 1).

I also include a dummy variable of Chinese owned firm to test whether Chinese firms behave differently. Considering some projects are jointly owned by several entities, this project follows research by Haslam and Tanimoune[170] that scores companies that hold majority ownership (greater than 50%) as the project owner. For instance, a project is considered as a Chinese owned firm if the Chinese firm possesses 80% of the property.

The study also includes firm size, which is a significant predictor of CSR practices based on the analysis of data, as a control variable. I use numbers of employees to measure firm size.[171]

3.2.2 CSR

Variable *CSR* measures the overall CSR performance of the firms. I make this variable into an additive variable which covers 6 dimensions: CSR publication, community engagement practices, strategies on environmental protection, labor practices, language of CSR-related contents, and legacy conflict. The dimensions are identified through an examination of the existing literature on CSR performance and the definition of CSR initiatives in extractive industries. Variable publication is on a scale of 0 to 5. Variables community engagement practices, strategies on environmental protection, labor practices are on a scale of 0 to 2. Variable language is a binary (0 and 1 value) variable. Variable legacy conflict is on a scale of 0 and 3. Values are added together for each variable. Variable *CSR* thus ranges from 0 to 12.

In addition to considering the suggested factors that affect the quality of CSR performance discussed in the literature review, I also referred to various websites when developing a strategy

[170] Haslam and Tanimoune, 407.
[171] I tried to use market capitalization value first as suggested by the past research (Haslam and Tanimoune, 403.

for measuring companies' CSR performance. The websites are EITI (EITI standard); Global Compact (principles); ILO; International Council on Mining and Metals (ICMM); OECD (Guidelines for Multinational Enterprises); UN (Guiding Principles on Business and human rights, UN Convention on Biological Diversity, UN "Protect, Respect, and Remedy" Framework); UNEP (Guidance for the Mining Industry in Raising Awareness and Preparedness for Emergencies at Local Level). From the documents, I found that there are the below various aspects to consider when evaluating companies' performance: companies' disclosure of CSR reports (reflects companies' transparency level and its information disclosure systems); companies' disclosure of their payments made to governments in the host country in relation to mining projects (according to EITI standard); companies' avoidance of voluntary resettlement; companies' respect for Indigenous rights (according to FPIC); responsible labor practices (avoidance of child labor, provision of good working conditions, respect for minimum wage standard, provision of health and safety training for employees); and comprehensive, systematic and reasonable measures to reduce the direct and indirect impact on the environment and their incorporation into investment decision-making. I notice that some researchers use global reporting initiative (GRI) criteria to evaluate companies' performances. Some mining companies also use GRI standard as a guideline for their performance. This research refers to GRI to identify important dimensions but does not fully integrate GRI standards to rate companies' CSR scores, for three reasons. First, the GRI sector standard for mining industries was not scheduled to be finalized until April 2023. Second, it would not be feasible to gather the data needed to score my cases according to the (in-progress) GRI standard. The standard has too many items for inclusion in a large-*n* study with as many cases as this research manages. Furthermore, some of the GRI standard items would require fieldwork (which also would not be feasible for all cases in a large-*n* study). Third and finally, because the current GRI standard covers all industries, it is too broad for this dissertation.

A large amount of past work on evaluating CSR performance is qualitative and focuses on small-N case studies. For instance, Wilson accesses the effectiveness of the economic, social and environmental dimensions of CSR initiatives at the diamond mining communities in Koho District, Sierra Leone. The author evaluates the performance of one industrial diamond mining company through survey data: household survey in December 2018 and January 2019. The survey contained indicators for economic, social and environmental impacts of CSR.[172] Overland et al. developed the Arctic Environmental Responsibility Index (AERI) to evaluate the performance for 120 oil, gas, and mining companies involved in resource extraction in the Arctic region across Alaska, Canada, Greenland, Finland, Norway, Russia, and Sweden. The index is based on the survey of 173 International Panel on Arctic Environmental Responsibility (IPAER) members. The authors use the index to rank all the companies and find that Equinor, Total, Aker BP, ConocoPhillips, and BP are the most environmentally responsible companies. This finding is limited to a specific region and thus is not able to be applied globally.[173]

For quantitative strategies, Vintró and Comajuncosa developed a three-level model composed of 31 indicators and a global index to evaluate CSR performance. The authors assign a score to each indicator. The scores can then be aggregated into group scores and the CSR Index. A company's CSR performance is the score obtained from the index. The index contains three levels of CSR criteria and management system requirements: Environment (environmental policy, environmental action plan, evaluation of environmental impacts), Occupational health and safety (health and safety policy, risk assessment, accident and illness

[172] Sigismond A. Wilson, "Measuring the Effectiveness of Corporate Social Responsibility Initiatives in Diamond Mining Areas of Sierra Leone," *Resources Policy* 77 (2022): 102651.
[173] Indra Overland, Anatoli Bourmistrov, Brigt Dale, Stephanie Irlbacher-Fox, Javlon Juraev, Eduard Podgaiskii, Florian Stammler, Stella Tsani, Roman Vakulchuk, and Emma C. Wilson, "The Arctic Environmental Responsibility Index: A method to rank heterogenous extractive industry companies for governance purposes," *Business Strategy and the Environment* 30, no. 4 (2021): 1623-1643.

investigation), and Quality (quality assurance program, stakeholder satisfaction).[174] Based on the current standards including Responsible mining foundation (RMF), ICMM, Initiative for Responsible Mining Assurance (IRMA), Towards Sustainable Mining (TSM), CSR hub and other initiatives, Bascompta et al. develop a new quantitative CSR index with two dimensions, socioeconomic and environmental, and 30 elements (they assign a score to each element on a scale from 1-5).[175] The index aims to provide an effective tool for researchers to analyze CSR performance.[176]

Overall, there is no universal standard used to measure CSR performances. Existing quantitative measurement methods all consider CSR's socio-economic and environmental dimensions. Other scholars have not used the above-mentioned CSR index. Thus, the viability and effectiveness of the index are unknown. This study develops its own CSR scoring strategy and then tests it using statistical analysis, thus contributing to the literature of CSR performance measurement in the mining industry.

In my project data file, I have a total of 555 owners, including companies and governments. I score each company's CSR performance. Because the dataset contains a large number of mining companies and because a lot of detailed information is unavailable through internet research, this dissertation excludes many CSR performance indicators. The measurement of CSR in this study is broader than previous measurements. It is efficient but may lack certain details. For example, it omits the indicator donation rate which might reflect a company's CSR performance at local communities.[177] The research is still valuable, because it incorporates the variables that emerge from the comparative literature and from the China-focused literature,

[174] Carla Vintró and Josep Comajuncosa, "Corporate Social Responsibility in the Mining Industry: Criteria and Indicators," *Dyna* 77 (2010): 31-41.
[175] Marc Bascompta, Lluís Sanmiquel, Carla Vintró, and Mohammad Yousefian, "Corporate Social Responsibility Index for Mine Sites," *Sustainability* 14, no. 20 (2022): 13570.
[176] Christensen, 65-101.
[177] Vintró and Comajuncosa, 31-41.

alongside a dummy variable for Chinese-owned projects. In this way, it allows for an unidentified, China-specific factor to matter in quantitative analysis. Moreover, this research includes the comparison of a set of cases studies in Chapter 5 to discuss in detail the quantitative results.

This study measures the quality of CSR performance, in other words, how good or bad a company performs on its social responsibility. Variables CSR publication, community engagement practices, environmental protection strategies, labor practices, and languages of CSR contents serve as indicators that reflect the quality of the CSR performance. For instance, a company has poor community engagement practice when the company forces residents to relocate without consultation or compensation. The above literature review indicates that the performance of a firm's community engagement activities manifests in various ways: local consultation effort; disturbance on local subsistence activities (for the Indigenous groups, such as traditional hunting or fishing activities) or local activities (such as blocking or using community's properties such as farmlands or major roads, rivers); the absence of a waste treatment strategy indicates that the company has a poor performance regarding environmental protection.

I also account for legacy conflict in this study. To account for the issue of endogeneity, legacy is a sperate measure and is not part of the CSR total score. McAdam et al. included a measure of prior social movement activity in their study. They asked what factors cause social movement around pipeline projects in the developing world. They used previous conflict as one of the causal factors that are associated with the emergence of legal and political conflict within oil and gas pipeline projects. The previous conflict data was gathered from the Cross-National Time Series Data Archive's Weighted Conflict Index (collected by Banks and Databanks International in 2009). "The index weights numbers of assassinations, strikes,

guerrilla warfare, government crises, purges, riots, revolutions, and antigovernment demonstrations in a given country in a given year." They used the data as a reflection of "the level of prior contention in the country," and argued that "where contention has been high in the past, it makes sense to expect conflict in the present."[178] CSR failures at the community level thus tie to the conflicts that happened in the past. Legacy conflict does matter to explain the quality of a company's CSR performance. Past conflicts have implications for current behaviors. For instance, Rio Tinto has generated conflict in the U.S., Canada, Brazil, and Australia. The history of conflict indicates the company has problems in its CSR performance. It is important to clarify that this strategy does not mean that I assign a low score for a company because it is associated with a known conflict at the project site in my dataset. I only measured the company's performance based on a calculation and evaluation of the amount of existing conflicts that the company has generated. The legacy conflict variable is not a legacy CSR performance variable. Because I measure the legacy by looking at whether there is some kind of conflict in the past that was linked to CSR practices. I only identify a bad legacy of CSR by first finding conflict and then seeing if CSR caused it. It is worth noting here that what I am not finding is bad CSR practices that may not have caused conflict. At the current point, I am unable to separate 1) bad CSR in the past that could have contributed to the legacy of conflict; from 2) any other factors that could have contributed to the legacy of conflict. For instance, if a company has a reputation for making corrupt deals with central governments, then perhaps when the company tries to set up its operations, communities tend to protest against the company.

[178] McAdam et al., 414.

Table 3.2 Measurement: CSR[179]

Variables	Score	Source
CSR Publication **0-5**	0 = no CSR publication; 1 = one term of CSR mentioned and outdated report (5 years ago); 2 = two terms of CSR mentioned and outdated report (5 years ago); 3 = three terms of CSR mentioned and outdated report (5 years ago); 4 = 4 terms of CSR mentioned and outdated report (1-3 years ago); 5 = very comprehensive CSR	Company websites, archival reports/documents
Community engagement practices **0-2**	One point each for a special website section on community care; specific strategies/case studies.	Company's website
Strategies for environmental protection **0-2**	One point each for a special website section on environmental performance/sustainability/ESG; specific strategies/case study regarding environmental performance/sustainability/ESG.	Company's website
Employee-wellbeing (labor practices) **0-2**	One point each for a special website section on employee wellbeing; specific strategies/case studies.	Company's website
Legacy conflict (not part of CSR total score) **0-3**	0 for no legacy conflict; One point each of there is a legacy conflict for each dimension: community engagement, environmental protection, and employee-wellbeing.	Company's website, existing research, news articles, archival reports/documents
Languages **0 &1**	One point if the company does have a CSR report in the local language where they operate; zero point if they don't have.	Company's website

I also note here that my measurements of CSR performance are at the community level and target corporation-community relations. The measurement of each CSR dimension is based on the existing CSR documents appeared on companies' official websites and literatures/new articles [180] that have discussed about companies' CSR performances. The scale of

[179] Because some companies own multiple projects, I use the same rating on CSR for these companies.
[180] News articles provide a broad overview of cases and generate valuable information on company's performances and local responses.

measurement[181] is based on the framework that Ans Kolk and colleagues developed to measure the codes of conduct.[182] Table 3.2 provides a summary of the CSR measurement strategies.

CSR publication – this variable indicates the existence of publication or reports of CSR activities.

CSR documents were collected from searching each company's website. The variable was scored from 0 to 5. A score of 0 indicates that a company does not have any document or report of its CSR activities or performance. This company also does not have any document describing their social responsibility using terms/key words such as "employee's well-being", "sustainable development", "community relations", "environmental protection", "ESG", "sustainability", "social responsibility" or "corporate strategy"[183], which need to be considered because these terms are considered as elements of the broad CSR definitions in extractive industries (these elements and CSR definitions were drawn from existing literature on CSR).

A score of 1 indicates that a company does have documents or does mention only one term of CSR. For instance, one company has a description of its community relations on its main website, but it does not mention other terms such as environmental protection or employee's well-being. At the same time, their description is either outdated [184] or not considered comprehensive at all. For instance, they only have two sentences describing their community relations. For this research, I consider "outdated" as reports published before 2017 (5 years ago).

[181] Ordinal scale levels of measurement as the scale ranges form 0-5 which represents the lowest level to the highest level.
[182] Ans Kolk, Rob Van Tulder, and Carlijn Welters, "International Codes of Conduct and Corporate Social Responsibility: Can Transnational Corporations Regulate Themselves?," *Transnational corporations* 8 (1999): 143-180.
[183] Some companies have their CSR strategies mentioned under "corporate strategy" while some don't. It is important to pay attention to this element when searching on their websites.
[184] In this paper, I consider more than 2 years old on the document.

A score of 2 indicates that a company does have documents or does mention two terms of CSR. But their description is either outdated or not considered comprehensive. Or, they have more description on one term of CSR.

A score of 3 indicates that a company does have documents or does mention three terms of CSR, but their descriptions are relatively old (5 years ago). The CSR strategies are described in a broad way.

A score of 4 indicates that a company has documents or reports on all four terms of CSR, but the reports are either incomprehensive or outdated (1-3 years ago).

A score of 5 indicates that a company has very comprehensive and updated CSR reports or documents. The CSR strategies are described in a specific way. The company has specific CSR strategy targeting each region that they have projects in.

Environmental protection strategies - This variable indicates a company's performance on environmentally friendly operations (for instance, waste management, pollution clean-up). Also, the variable considers whether a company has sustainable measures for its operations. A company earns one score if it has a special section on its website that talks about either the environment of sustainability; a company earns another score if this section has specific measures (such as technologies for mitigating side environmental effects or special measurements targeting a particular community, or renewable energy options or specific case studies).[185]

[185] I assigned 2 score to past conflict is because other than website descriptions (reports), companies' real performances on the ground are more important. And with a large N study, the only possible way to evaluate a company's performance on the ground is to find whether it has generated conflicts before. Because detailed information for each mining project is not accessible online. Moreover, past experience offers a broader view of a company's overall performances. Also note here that some researchers consider company's response to incidents, and whether a company has a particular team/staffing for environmental concerns. I selected a random sample of 50 companies and went on their website to check whether they have the information. I found that a lot

A score of 0 indicates the company has no section on its website related to environmental protection and no special measures/case studies.

A score of 2 indicates the company has a section on its website related to environmental protection and has special measures/case studies.

Community engagement practices - the variable measures the company's community engagement practices at the local community. A company earns one score if it has a special section on its website that talks about community care/development strategies; a company earns another score if this section has specific measures (such as specific community development/engagement strategies, financial/infrastructure support, specific case studies).

A score of 0 indicates that the company has no section on its website related to community engagement and no special measures/case studies.

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of large companies and small ones do not have the information. The measurement categories that were chosen in this research was influenced by several existing methods. For example, the Responsible Mining Index 2020 published a report which evaluates mining companies' environmental behaviors on-site and applies a score to each company. Report can be accessed at: "Summary," *Responsible Mining Index* 2020. Accessed October 13, 2022, https://2020.responsibleminingindex.org/en/summary; Also, many companies use the term "ESG" on their website now to refer to their strategies on environmental protection. Environmental, Social, and Governance (ESG) Criteria are "a set of standards for a company's operations that socially conscious investors use to screen potential investments. Environmental criteria consider how a company performs as a steward of nature. Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates. Governance deals with a company's leadership, executive pay, audits, internal controls and shareholder rights." Several elements are considered under the environmental criteria such as: whether companies have a sustainability report, limit harmful pollutants, seek to lower CO2 emissions, and have renewable energy options. From "What Is Environmental, Social, and Governance (ESG) Investing," *Investopedia*, March 22, 2023, https://www.investopedia.com/terms/e/environmental-social-and-governance-esg-criteria.asp. MSCI is one of the largest rating agencies MSCI rates over 8.500 companies as of October 2020. Its Implied Temperature Rise is an indicator of mining company's environmental performances. "MSCI Emerging Markes Metals and Mining Index (MSD)," *MSCI*, accessed October 10, 2022, https://www.msci.com/documents/10199/af13fcf1-26ab-4447-9c56-fb174863e2c5. Sustainalytics for ESG scoring because it is another well-known provider. For instance: "Zijin Mining Group Co., Ltd.," *Sustainalytics*, accessed October 13, 2022, https://www.sustainalytics.com/esg-rating/zijin-mining-group-company-limited/1016221104. This dissertation decide not to use the two sources is because there are criticisms for these ESG scoring system that a higher ESG score does not mean a good performance on the ground. Companies invest in ESG strategies to get a good score, but their real performances are unknown. This is another good reason for me to use past conflict as a measurement criteria. From: "One of the Hottest Trends in the World in Investing is a Sham," *The New York Times*, September 29, 2022, https://www.nytimes.com/2022/09/29/opinion/esg-investing-responsibility.html.

A score of 2 indicates that the company has a section on its website related to community engagement and has special measures/case studies.

Labor practices - the variable measures of a company's performance regarding its labor practices. A company earns one score if it has a special section on its website that talks about labor/employee wellbeing; a company earns another score if this section has specific measures (such as pensions, health care, or safety instruction/measures, case studies).[186]

A score of 0 indicates that the company has no section on its website related to employee wellbeing and no special measures/case studies.

A score of 2 indicates that the company has a section on its website related to employee wellbeing and has special measures/case studies.

Legacy conflict – the variable measures if there is existing conflict associated with a firm. I first create three binary variables (score of 0 indicates no legacy conflict, and score of 1 indicates there is a legacy conflict): legacy conflict in community engagement strategies, legacy conflict in environmental protection initiative, and legacy conflict in labor practices. I took this step because it is easier for me to record the values from various web sources. I then create a legacy conflict variable to combine the value of the three variables. Thus, the value of the new variable ranges from 0 to 3. Note here that legacy score is not part of CSR total score.

Language – The Chinese-owned Gloden Dragon copper tube manufacturing company faced problems when operating in Mexico, because the Chinese employees do not speak Spanish and the Mexican employees do not speak Chinese. Only a few employees speak English – the common third language.[187] Language is an important aspect that shows how much effort a

[187] Ray et al., 19.

company puts into communication with communities. Therefore, it is important to include language as a variable to test its correlations with social conflicts. The variable tests whether companies' CSR strategies are accessible to the community members and employees in the host country. This dissertation will include the Language variable: lan. I look at companies' websites to see if they have a version of their CSR in the local language of the country where the mine project in question is located. A score of 0 indicates there is no local language version of the CSR while a score of 1 indicates there is a local language version of the CSR.

International Standards - I include a variable to check whether a company is a member of the UN Global Compact. UN Global Compact is the world's largest corporate sustainability initiative. It is a "voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support UN goals."[188] It calls companies "to align strategies and operations with universal principles on human rights, labor, environment and anti-corruption, and take actions that advance societal goals."[189] [190]

Finally, I used a China dummy variable to tease out any "China factor" that is not captured by these variables.

3.3 Control Variables

The control variables in this study are variables that could affect local communities' well-being and could cause social conflicts independently or when combined with multinational companies' poor CSR performances, such as host countries' macro-economic status, or community conditions. For example, host countries' governmental policy on resource extraction and public participation could lead to social conflicts. Thus, I need to account for

[188] "About the UN Global Compact," *United Nations Global Compact*, accessed October 13, 2022, https://www.unglobalcompact.org/about.
[189] Ibid.
[190] As mentioned in the literature review, whether a company complies to ILO 169 is not measurable.

social conflict that was caused by these country-level factors. This measurement provides variations for projects in different countries.

I use national level data to test local level conflicts because mining operations' impacts often span multiple communities, and are thus national, as opposed to local. This justifies this study's use of national-level data for explaining the causal relationships.[191] Controlling these variables is also helpful to limit my research only to explore the relations between extractive industries' CSR performances and social conflicts. Table 3.3 summarizes the measurement strategy for other variables.

State wealth – I refer to the World Bank data on GDP per capita (current US$) to measure a state's wealth. I use the latest 2020 data and score the variable from 0 to 5 based on the scoring system by the World Bank: Score 0 (0), Score 1 (<10.41), Score 2 (10.41 – 28.88), Score 3 (28.88 – 46.77), Score 4 (46.77 – 67.33), Score 5 (>67.33).[192]

Country's freedom level – The resource curse literature suggests that social conflict emerges more often under democracy, because the states are less likely to repress within a liberal environment, and individuals/groups have more channels to mobilize (see Chapter 2). I refer to the Freedom House Global Freedom Scores for the measurement of the freedom level for each country. Freedom House "rates people's access to political rights and civil liberties in 210 countries and territories through its annual Freedom in the world report."[193] The scores range from 0 to 100 and each country is categorized as Not Free, Partly Free and Free. I thus

[191] McAdam et al., 410.
[192] "GDP per capita," The World Bank, accessed November 25, 2022, https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2020&start=2020&view=map.According to the World Bank: "GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources."
[193] "Global Freedom Scores," *Freedom House*, accessed October 15, 2022, https://freedomhouse.org/countries/freedom-world/scores.

assign a country score 0 if it is Not Free. Score 1 means the country is Partly Free. Score 2 means the country is classified as Free.

Reliance on extraction – I refer to the World Bank data on Mineral Rents (% of GDP) to measure a country's reliance on extraction.[194] I use the latest 2020 data and score the variable from 0 to 5 based on the scoring system by the World Bank: Score 0 (0), Score 1 (<0.75), Score 2 (0.75 – 1.86), Score 3 (1.86 – 3.05), Score 4 (3.05 – 5.13), Score 5 (>5.13).

Table 3.3 Measurement: Other Variables

Control Variables	Score	Source
Country-level		
State wealth	Score 0 (0), Score 1 (<10.41), Score 2 (10.41 – 28.88), Score 3 (28.88 – 46.77), Score 4 (46.77 – 67.33), Score 5 (>67.33)	World Bank data on GDP per capita (current US$): https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2020&start=2020&view=map
Reliance on extraction	Score 0 (0), Score 1 (<0.75), Score 2 (0.75 – 1.86), Score 3 (1.86 – 3.05), Score 4 (3.05 – 5.13), Score 5 (>5.13)	World Bank data on Mineral Rents (% of GDP): https://data.worldbank.org/indicator/NY.GDP.MINR.RT.ZS
Freedom level	Score 0 (Not Free), Score 1 (Partly Free), Score 2 (Free)	Freedom House Global Freedom Scores: https://freedomhouse.org/countries/freedom-world/scores
Water risk level	No data; low risk (0-1), low to medium risk (1-2), medium to high risk (2-3), high risk (3-4), extremely high risk (4-5)	Aqueduct Global Map 2.1 data
Firm Characters		
Ownership1 (domestic/foreign)	Score 0 (Domestic), Score 1 (Foreign)	Company's website, Bloomberg[195], Google search

[194] "Mineral Rents," The World Bank, accessed November 25, 2022, https://data.worldbank.org/indicator/NY.GDP.MINR.RT.ZS. According to World Bank: "Mineral rents are the difference between the value of production for a stock of minerals at world prices and their total costs of production. Minerals included in the calculation are tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate."
[195] "Bloomberg," accessed November 29, 2022, https://www.bloomberg.com/.

Ownership2(private/public)	Score 0 (Private), Score 1 (Public)	Company's website, Bloomberg, Google search
Size (junior/major)	Score 0 (Junior), Score 1 (Major)	Company's website, Bloomberg, Google search
International Norms		
UN Global Compact member	Score 0 (No), Score 1 (Yes)	UN Global Compact: https://www.unglobalcompact.org/what-is-gc
Dummy variable		
Whether Chinese firm or not	Score 0 (No), Score 1 (Yes)	Company's website

Chapter 4 Results of Quantitative Data Analysis

Based on the measurement strategies described in Chapter 3, this chapter discusses the results of the quantitative data analysis. It starts with demonstrating the descriptive analysis results for firm characteristics then moves on to discuss the logistic regression analysis results. The logistic regression in this research involves five data models. This section explains the tests results for each independent variable.

4.1 Descriptive Results

The following table illustrates company characteristics and their relationship with social conflicts in the dataset. Out of 1001 mining projects, 266 of them are associated with existing social conflicts, which means, 26.58% of the mining projects have social conflicts. Among the 266 conflict cases, domestic firms contributed 155 of them and foreign firms contributed to 111 of them. In sum, 58.27% of the mining conflicts were contributed by domestic firms and 41.73% of the mining conflicts were contributed by foreign firms.[196] Private firms contributed to 191 (71.8%) social conflicts and public firms contributed to 75 (28.2%) conflicts. The descriptive data indicates that private firms generate more conflicts than public firms. Junior sized firms generated 30 (11.28%) conflicts while major sized firms generated 236 (88.72%) conflicts. Thus, major sized firms generated more conflict than junior sized firms. It is important to note here that descriptive data does not indicate statistical significance. To test whether there is statistical significance between each independent variable and conflict, I perform logistic regression analysis that described in the next section.

[196] Note here that "domestic" or "foreign" are categorized based on each project. For instance, when Russian Copper operates in Russia, the project is considered domestic-company operated; when Russian Copper operates in Kazakhstan, the project is considered foreign-company operated.

Table 4.1 Determinants of Social Conflicts – Company Characteristics

	Projects with social conflicts
Number	266 26.58%
Ownership1 – Foreign-Domestic	
Projects operated by domestic firms	155 58.27%
Projects operated by foreign firms	111 41.73%
Total (Percentage)	266 (100%)
Ownership2 – Private-Public	
Projects operated by private firms	191 71.8%
Projects operated by public firms	75 28.2%
Total (Percentage)	266 (100%)
Size	
Junior firms	30 11.28%
Major firms	236 88.72%
Total (Percentage)	266 (100%)

4.2. Logistic Regression Analysis Results[197]

4.2.1 Firm characters

The table below illustrates the results for five logistic data models. Model 1 tests whether a mining firm's ownership matters to social conflicts, regardless of firm's CSR performance. Variables tested are "Foreign-Domestic", which indicates whether a company is domestic-owned (score 0) or foreign-owned (score 1); and "Private-Public", which indicates whether a company is privately owned (score 0) or publicly owned (score 1).

From the result, both variables "Foreign-Domestic" and "Private-Public" are statistically significant. The variable "Foreign-Domestic" is significant at 0.001 level. These results suggest that whether a firm is domestic or foreign influences the existence of social conflicts and the positive coefficient indicates that foreign firms tend to generate more conflicts than domestic firms. According to previous literature, MNCs, with modern technology and comprehensive CSR strategies may reduce the likelihood of social conflict. But scholars also argue that MNCs,

[197] See Appendix for data models and results in RStudio.

with their profit-maximization nature, may be less likely to invest in community engagement and environmental management initiatives, thus are more likely to cause social conflict. Moreover, other reasons such as dissatisfaction against foreign firms and tensions between firm – community and community – government may all trigger conflict.[198] The analysis result shows that foreign firms do generate more conflicts. Because of the variation for each case and the large number of cases, this study does not provide a universally applicable conclusion that foreign firms in general perform poorly. Future in-depth studies are needed to find more comprehensive understandings.

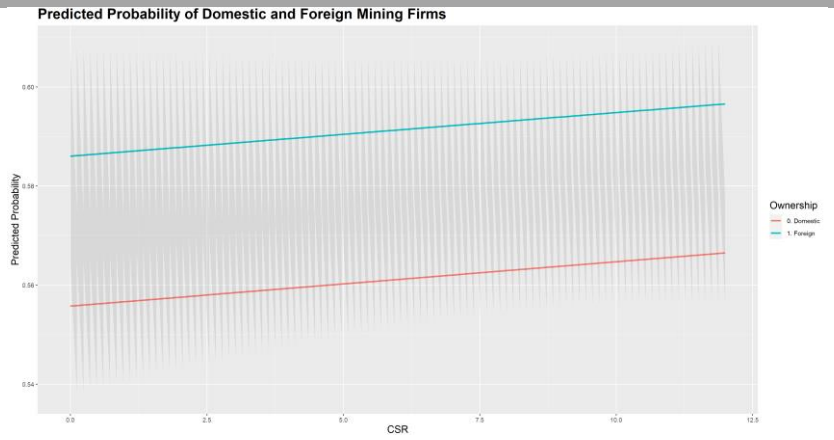
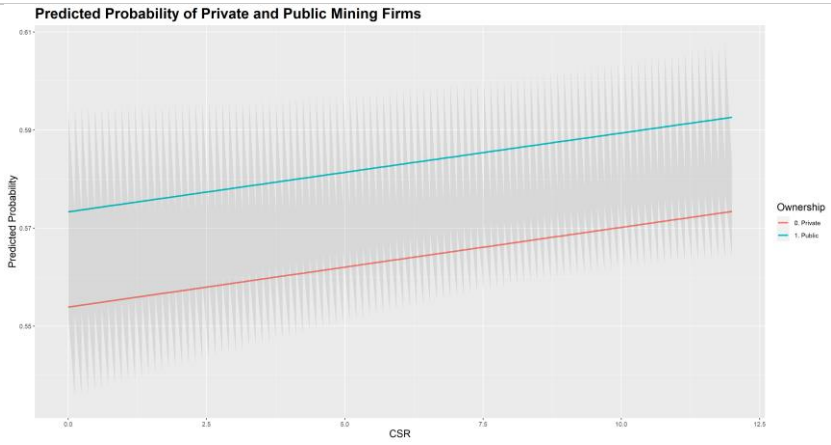
The "Private-Public" variable is significant at 0.01 level. This result suggests that whether a firm is private, or public affects the existence of social conflict, and the positive coefficient indicates that public firms tend to generate more conflicts than private firms. The result is compatible to the discussion in the literature review section that firms' ownership structure of a mining project affects the likelihood of social conflict. The result reflects what scholars have suggested before, that state-controlled resource extraction may increase the risk of internal violence, and private domestic firms generate less conflict. The test provided in this study is not sufficient to explain the reasons for these circumstances. More in-depth research is required to investigate why private and public firms have different causal relations with social conflict. Interview or survey methods might be of great value for future studies.

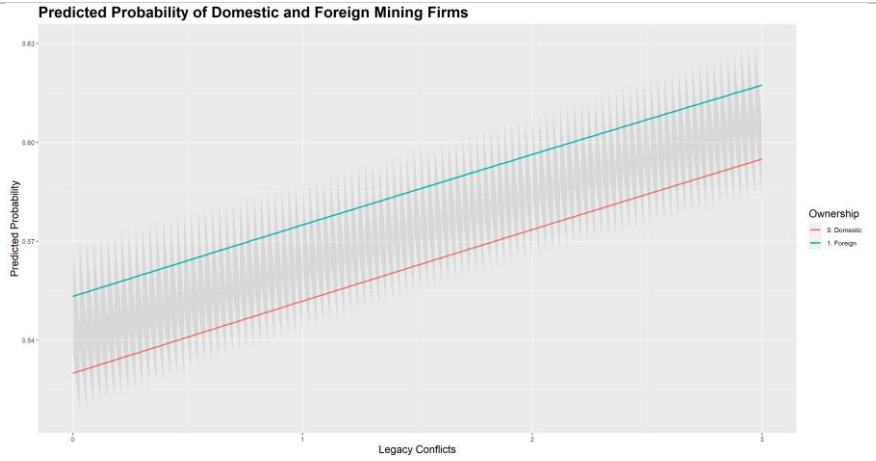
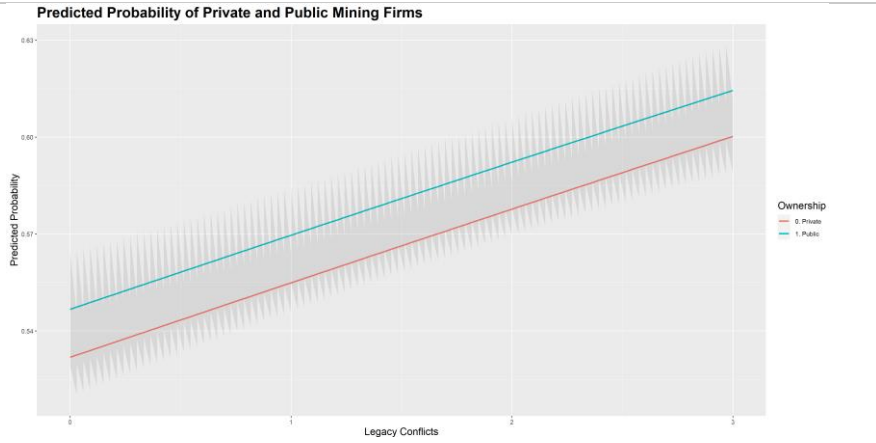
The below table illustrates the predicted probability for variables "Foreign-Domestic" and "Private-Public". The two variables were held constant across the cases. The Plots clearly indicate that foreign firms have higher probabilities of generating conflict than domestic firms. And public firms have higher probabilities of generating conflict than private firms. Moreover,

[198] Gochero and Boopen, 1–17; Wegenast and Schneider, 111; Arce, 2014; McDonell, 112-123; Asal et al., 1343-1367; Oyefusi, 539-555; Luong and Weinthal, 241-263; Banks, 43-59; Amengual, 31–45.

results from the data models show that major firms have higher probabilities of generating social conflicts than junior sized firms.

Table 4.2 Predicted Probability for Ownership variables "Foreign-Domestic" and "Private-Public"

Variables	Predicted Probability	Plot
Ownerhship1 (domestic/foreign)	When CSR and firm size are held at their means, the predicted probability of conflict for a domestic firm is 25.29384%; the predicted probability for a foreign firm is 37.65934%.	
Ownershi p2 (private/public)	When CSR and size are held at their means, the predicted probability of conflict for a private firm is 26.91581%; the predicted probability for a public firm is 34.81272%.	

Ownerhship1 (domestic /foreign)	When Legacy and firm size are held at their means, the predicted probability of conflict for a domestic firm is 24.64509%; the predicted probability for a foreign firm is 34.03909%.	
Ownership2 (private/public)	When Legacy and size are held at their means, the predicted probability of conflict for a private firm is 26.07987%; the predicted probability for a public firm is 32.06357%.	

4.2.2 CSR

Model 2 tests whether CSR matters to social conflicts. This data model considers the total score of CSR. The variable CSR sum score is significant at the 0.001 level with a positive coefficient, which indicates that firms with higher CSR scores have more probability to generate social conflict. This is surprising as we usually suppose higher CSR scores would lower the probability of social conflict. Though this result indicates that the CSR variable is statistically significant, it is not compatible with our hypotheses that firms with better CSR performance contribute to less conflict. As the previous literature suggest, firm-community relations influence the patterns and outcomes of social mobilizing.[199] Companies engage in

[199] Haslam et al., 521-551; Lowe, 2009; Arsel et al., 880-887; Jones, 299-312; Trofimov, 2007; Wegenast et al., 2017.

CSR initiatives to mitigate social conflict. CSR strategies that focus on community development and well-being also reduce the possibility for conflict. This study develops its own measurements for the quality of CSR. As described in Chapter 3, the measurements largely depend on the publication of CSR initiatives on each firm's website. The result shows that with the exception of publication, current CSR has little impact on conflict. Future studies could explore other ways of measuring CSR performance and perform the analysis on the same dataset and compare the similarities/differences in results.

Model 3 elaborates on Model 2 and tests each factor (publication, language for publication, community engagement strategy, environmental protection measurements, and employee-wellbeing) that determines the quality of CSR separately to check the individual effects of each factor on social conflicts.

The variable "publication" is not statistically significant. The coefficient for CSR publication is negative, which indicates that more CSR publication is correlated with less social conflict. The result is compatible with existing studies that have suggested that CSR publications affects the quality of firms' CSR performance, that more CSR publication might be associated with less conflict.[200] The result that the variable publication is not statistically significant is not sufficient for this study to accept Hypothesis H2 (a), that firms with poor CSR publications confront more social conflict. The hypothesis is thus rejected.

The study includes a language variable to indicate how much effort a company puts into communication with communities, as many firms are foreign firms. The variable "language" is not statistically significant with a negative coefficient. Hypothesis H2 (e) - Firms without content on their website or publication that describes/talks about CSR in the local language where they operate confront more conflict is thus rejected. The result shows that firms with

[200] Du and Vieira, 413-427; Dong and Qian, 59-69.

more CSR documentations in the local language where they operate may have a lesser probability of generating social conflict.

Variables “publication” and “language” may have interactions that potentially influence the dependent variable – “conflict”. Therefore, to test whether language affects the quality of CSR publication, the study creates a new interaction variable between variable publication (pub) and language (lan). The data analysis shows that the new interaction variable is statistically significant at 0.1 level with a positive coefficient, suggesting that publications in the local language are correlated with more conflict. The result is surprising. This could be because CSR creates expectations within the community. Or it could be that companies work harder to publish CSR in an accessible language in places where they suspect there will be problems. The current data models and analysis provide ways to test the hypotheses. More studies need to be done to address the relationship between CSR publication and social conflict in the future.

Model 3 also finds that the variable “community engagement” is not statistically significant. The coefficient of the variable is positive which indicates that more or better community engagement practices may contribute to more social conflicts. This result is different from the literature review that suggests firms with comprehensive community engagement strategies perform better and confront less conflict. Hypothesis H2 (b) - Firms with poor community engagement practices confront more conflict is thus rejected. Future research should look at other ways to score firms’ community engagement behaviors and come up with a stronger way of measurement.

The variable “environmental protection strategy” is not statistically significant with a negative coefficient. The result shows that better or more environmental protection strategies reduce the probability of social conflicts. But the variable is not statistically significant.

Hypothesis H2 (c) - Firms with poor strategies for environmental protection confront more conflict is thus rejected.

The variable "employee well-being (labor practice)" is not statistically significant. The variable has a negative coefficient, which means, firms with worse labor practices may have higher probabilities to contribute to social conflicts. Hypothesis H2 (d) - Firms with poor labor practices confront more conflict is thus rejected.

The variable "legacy" is significant at 0.001 level with a positive coefficient. The results indicate that legacy behaviors have a significant impact on social conflict. Some firms behave badly regardless of their CSR initiative. The positive coefficient suggests that a history of bad behaviors results in more social conflict. This result is compatible with Hypothesis H2 (f) - Firms with more legacy failures contribute to more conflict. This study accepts the hypothesis.

4.2.3 Country-level variables

Three country-level control variables: "state wealth", "reliance on extraction", and "freedom level" are statistically significant across all five models (state wealth variable is significant at 0.001 level across all five models; the "reliance on extraction" variable is significant at 0.01 level across all five models; the variable "freedom level" is significant at 0.001 level across all five models). In every model, the coefficient for wealth is negative, which indicates that the probability of conflicts is higher in poor countries. The coefficient for the variable "reliance on extraction" is positive, which means, the probability of conflicts is high when a country relies a lot on mining extraction. The coefficient for the variable "freedom level" is positive. This indicates that conflicts tend to appear more often in democratic countries. The result demonstrates that all three country level control variables are statistically significant. This confirms the hypothesis that country level factors do explain the existence for social conflict.

These results are consistent with the assumption from the resource curse literature, that national level factors associated with the resource curse do matter.[201] Because this study argues that local variation in local governance outcomes cannot be explained by country level characteristics and the study focuses in explaining firm-community relations through questioning how MNCs generate social conflict, more detailed qualitative work could be done to fulfill the gaps in this study to explain how these factors contribute to mining conflicts, while interacting together with firm level variables.

4.2.4 Grievances

The grievance variable in this study is the water risk level. This study first performed spatial analysis in GIS software ArcMap. It then exported the data from ArcMap and integrated it to the logistic regression analysis. The measurement of water risk level at each project site aims to evaluate how threatening a mine would be to a community. As described in the measurement section, the Aqueduct Global Map 2.1 data includes indicators for water risk around the globe. The map provides the degree of water scarcity at each project site. The data is a consolidation of baseline water stress, inter-annual variability, seasonal variability, flood occurrence, drought severity, upstream storage, groundwater stress, return flow ratio, upstream protected land, media coverage, access to water and threatened amphibians.[202]

The data contains water risk levels that range from 0-5 (0-no data; 1-low risk; 2- low to medium risk; 3- medium to high risk; 4- high risk; 5- extremely high risk). It contains 985 projects which locations are available.

[201] Dunning, 1-100.
[202] Gassert et al., 2014.

Out of the 266 operations with known conflicts, 171 (64 %) of them experience higher than medium water risk; 106 projects experience medium to high water risk; 56 projects experience high water risk; and 9 projects experience extremely high water risk.

Out of the 719 non-conflict cases, 404 (56 %) of them experience higher than medium water risks (255 projects experience medium to high water risk; 131 projects experience high water risk; and 18 projects experience extremely high water risk).

The logistic regression of all projects indicates that the variable "water risk" is statistically significant at a 0.1 level, which means, the variable does not have a strong effect on the dependent variable - social conflict.[203] The coefficient for water risk is 0.14336, which indicates that sites with high water risk may be associated with more social conflicts.[204] But the result here does not sufficiently suggest that water risk level is one determinant for social conflict.

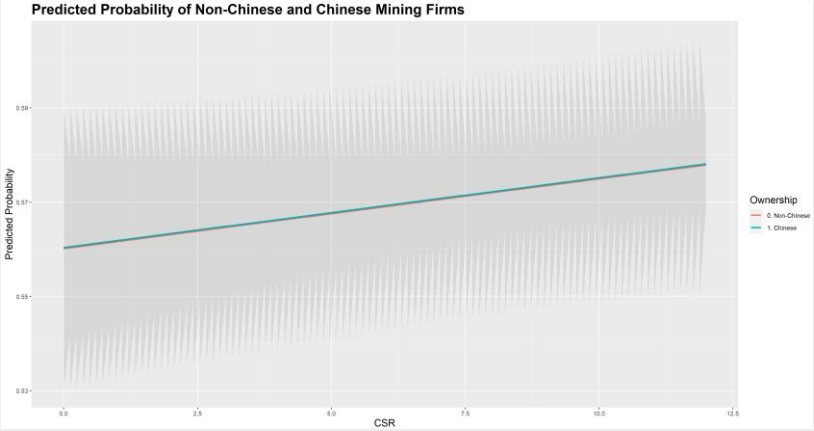
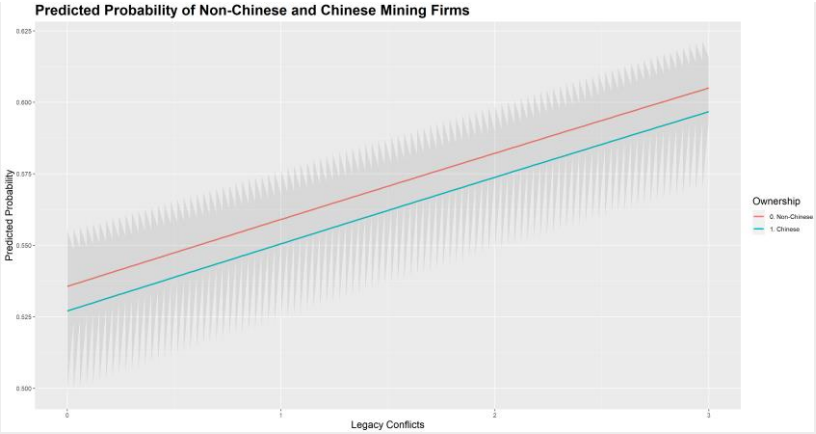
4.2.5 China dummy variable

Model 4 tests whether Chinese-owned mining firms generate more social conflict than non-Chinese firms. The model includes the China dummy variable. In this model, the variable "CSR sum score" is statistically significant with a positive coefficient. In contrast, the China dummy variable is not statistically significant. The table below illustrates the predicted probability for the China dummy variable. The plot demonstrates that when variables "CSR sum score" and "firm size" are held at their means, non-Chinese firms have slightly lower probability of generating social conflicts. When variables "legacy" and "firm size" are held at their means, non-Chinese have a higher probability of generating social conflicts. Hypothesis H1 – Chinese

[203] I use p-vale significance level at 95% for all my analysis, thus I conclude here the water risk variable is not statistically significant.
[204] See Appendix for the data model and data results.

mining MNE projects cause more conflict than projects financed by firms from other countries, is thus rejected because the China dummy variable is not statistically significant.

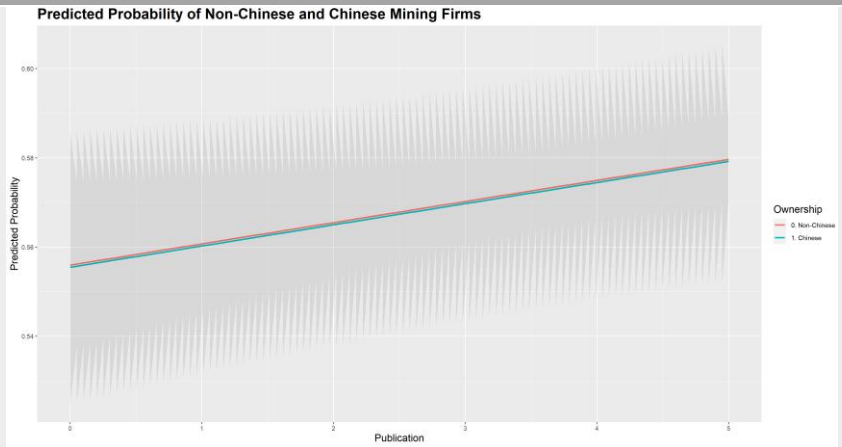
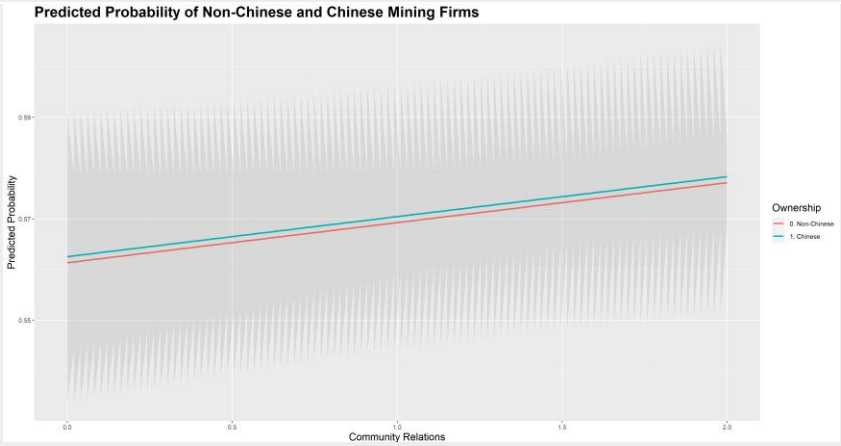
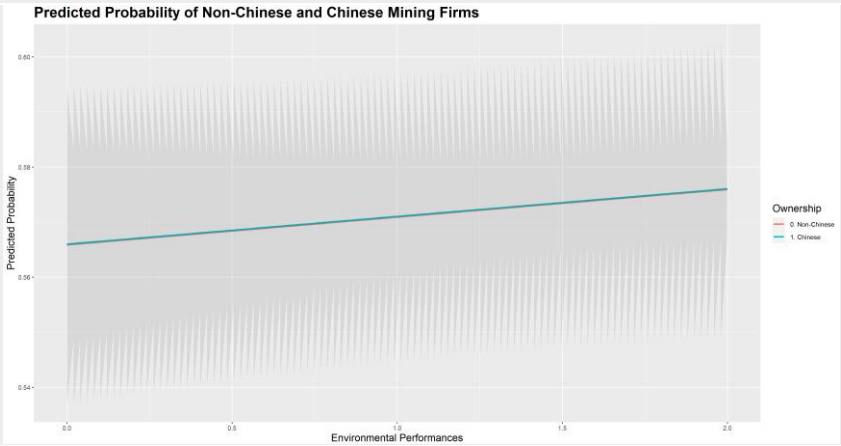
Table 4.3 Predicted Probability Plots

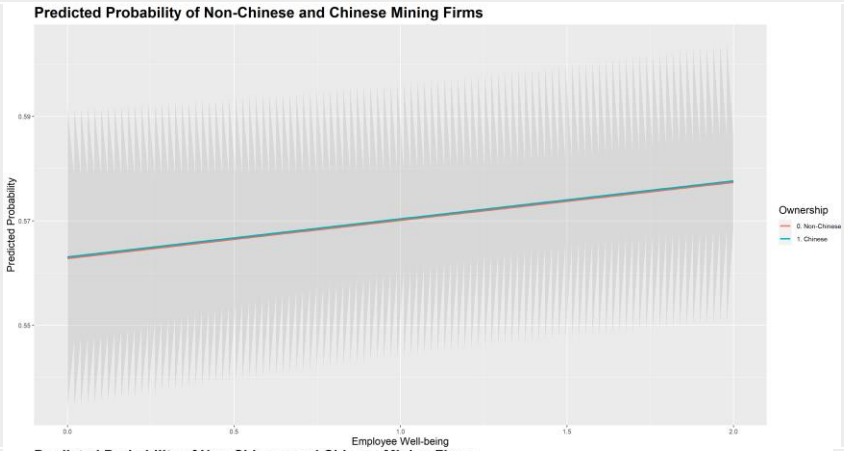
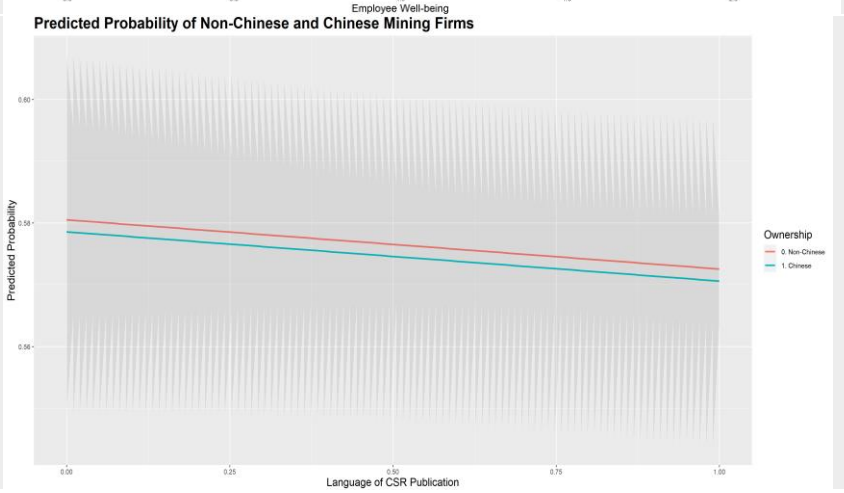
Variables	Predicted Probability	Plot
China dummy variable	When CSR and firm size are held at their means, the predicted probability of conflict for a non-Chinese firm is 28.99434%; the predicted probability for a Chinese firm is 29.08122%.	
China dummy variable	When Legacy and firm size are held at their means, the predicted probability of conflict for a non-Chinese firm is 27.83301%; the predicted probability for a Chinese firm is 24.38141%.	

Model 5 tests each factor that determines CSR quality separately, using the same strategy as Model 3. In this model, the variable “legacy” is statistically significant at 0.001 level with a positive coefficient. The China dummy variable is not statistically significant. These results are all compatible with the results from the former four data models. The table below illustrates

the predicted probability for Chinese firms and non-Chinese firms when each CSR factor variable is held constant.

Table 4.4 Predicted Probability – Chinese firms vs Non-Chinese firms

Factors that determine CSR performance	Predicted probability	Plot
Publication	When publication variable and size are held at their means, the predicted probability of conflict for a non-Chinese firm is 28.76674%; the predicted probability for a Chinese firm is 28.57447%.	
Community engagement	When community variable and size are held at their means, the predicted probability of conflict for a non-Chinese firm is 29.04617%; the predicted probability for a Chinese firm is 29.53048%.	
Environment	When environment variable and size are held at their means, the predicted probability of conflict for a non-Chinese firm is 29.34142%; the predicted probability for	

	a Chinese firm is 29.3925%.	
Employee-wellbeing (labor practices)	When labor variable and size are held at their means, the predicted probability of conflict for a non-Chinese firm is 29.11750%; the predicted probability for a Chinese firm is 29.22639%.	
Language of CSR publication	When language of CSR publication and size are held at their means, the predicted probability of conflict for a non-Chinese firm is 30.26703%; the predicted probability for a Chinese firm is 29.46956%.	

Because this project is focused on the question of whether Chinese firms are more likely to cause conflict, I add interactions between the CSR variables and the China variable as well. All the interaction variables between each CSR element and the China dummy variable are not significant. I also ran a simple correlation between CSR variables and China to see if there was any correlation. The below table shows the results. The correlation coefficient for each CSR variable is very small. The study thus concludes that CSR variables and the China dummy variable are not highly correlated. Chinese firms do not have significantly worse CSR than other country owned firms. China is not an outliner in the dataset.

Table 4.5 Correlation Between CSR Variables and China Dummy Variable

	Correlation Coefficient
CSR sum score	-0.00007161636
Publication	0.03287382
Community engagement	-0.04090531
Environment	-0.03762722
Employee-wellbeing (labor practices)	-0.01224157
Language	0.03474505
Legacy	0.1004203

Table 4.6 Results - Five Logistic Models

Variables	**Model 1**		**Model 2**		**Model 3**		**Model 4**		**Model 5**	
Control Variables	**Coefficient**	**Pr**	**Coefficient**	**Pr**	**Coefficient**	**Pr**	**Coefficient**	**Pr**	**Coefficient**	**Pr**
State wealth	-2.928E-05	***	-3.355E-05	***	-3.399E-05	***	-3.070E-05	***	-3.240E-05	***
Reliance on extraction	1.889E-01	**	1.816E-01	**	1.836E-01	**	1.884E-01	**	1.858E-01	**
Freedom level	5.841E-01	***	5.987E-01	***	4.889E-01	***	5.939E-01	***	4.791E-01	***
Water Risk	-3.575E-02		-2.293E-02		-1.846E-02		-4.088E-02		-2.176E-02	
Independent variables										
Firm characters										
Ownerhship1 (domestic/foreign)	6.055E-01	***					4.964E-01	**	2.532E-01	
Ownership2(private/public)	6.075E-01	**					5.062E-01	*	2.305E-01	
Size (junior/major)			8.463E-01	***	1.468E-01				1.079E-01	
CSR										
CSR publications					5.807E-02				-7.481E-02	
Community engagement					4.716E-01				4.825E-01	
Environmental protection					-3.393E-01				-3.129E-01	
Employee-wellbeing (labor practices)					-1.525E-04				-2.985E-02	

Language (version of CSR in the local language where firms operate)					-2.678E-02				3.142E-02	
Legacy					5.152E-01	***			4.956E-01	***
Total CSR score			6.271E-02	***			5.166E-02	**		
International Norms										
UN Global Compact member					2.462E-01				2.498E-01	
Dummy variable										
Whether Chinese firm or not							1.990E-01		-3.769E-02	

Note: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

The above table (Table 4.6) summarizes the results for all five data models. In Model 5, when putting in each individual factor that affects the quality of CSR, the result changed. The variables "Foreign-Domestic" and "Private-Public" are not significant. To test whether there is a correlation between each CSR variable and each ownership variable and whether the correlation has caused the change in the results, I used simple correlation analysis. The results are illustrated in the tables below. The correlation coefficient for each variable is low. I thus conclude that the correlation between each CSR variable and each ownership variable is not high enough to have significant effects on the dependent variable - social conflict. In this way, the results of the logistic analysis are reliable.

Table 4.7 Correlation Test Results

1) Correlation between CSR variables and Ownership 1 "Foreign-Domestic"

Variables	Correlation Coefficient
CSR sum score	0.1736492
Publication	0.2149808
Community engagement	0.1807422
Environment	0.1602717
Employee-wellbeing (labor practices)	0.1778006
Language	-0.1158286
Legacy	0.1764449

2) Correlation between CSR variables and Ownership 2 “Private-Public”

Variables	Correlation Coefficient
CSR sum score	0.0601352
Publication	0.05408064
Community engagement	0.04318581
Environment	0.02854824
Employee-wellbeing (labor practices)	0.05147572
Language	0.1523509
Legacy	0.1237682

4.3 Summary

The table Summary of Results summarizes the statistical significance for all the independent variables. The variable “CSR sum score” is statistically significant and firms with higher CSR scores generate more conflicts. Thus, firms’ CSR practices are associated with variation in conflict. The independent variables “publication”, “community engagement practices”, “environmental protection strategies”, “labor practices”, and “language” are not statistically significant. The variable “legacy” is statistically significant with a positive coefficient, which indicates that firms with legacy failures have higher probability to confront social conflict. Based on the results from the logistic regression, hypotheses H2 (a) to H2 (e) are rejected, and H2 (f) is accepted.

The data models also suggest that the variable whether a firm is a member of the UN Global Compact is not statistically significant with a positive coefficient. This indicates that a firm who is a member of UN Global Compact has a higher probability of generating social conflict. This result is also surprising and is different from what the scholars have suggested in the past. The current study does not provide a sufficient explanation for this circumstance. More studies need to be done in the future.

Table 4.8. Hypotheses H2

Hypotheses	Result
H2 (a): Firms with poor CSR publications confront more social conflict.	Reject
H2 (b): Firms with poor community engagement practices confront more conflict.	Reject
H2 (c): Firms with poor strategies for environmental protection confront more conflict.	Reject
H2 (d): Firms with poor labor practices confront more conflict.	Reject
H2 (e): Firms without content on their website or publication that describes/talks about CSR in the local language where they operate confront more conflict.	Reject
H2 (f) - Firms with more legacy failures contribute to more conflict.	Accept

Table 4.9 Summary of Results

Variables	Probability to generate social conflicts	Notes
Control Variables		
State wealth	Significant (-)	
Reliance on extraction	Significant (+)	
Freedom level	Significant (+)	
Water risk	Not significant	
Firm characters		
Ownerhship1 (domestic/foreign)	Significant (+)	Not significant when test each CSR component separately
Ownership2(private/public)	Significant (+)	Not significant when test each CSR component separately
Size (junior/major)	Significant (+)	Not significant when test each CSR component separately
CSR		
CSR publications	Not significant	
Community engagement	Not significant	

Environmental performances	Not Significant	
Employee-wellbeing (labor practices)	Not significant	
Language (version of CSR in the local language where they operate)	Not significant	
Legacy	Significant (+)	
Total CSR score	Significant (+)	
International Norms		
UN Global Compact member	Not significant	
Dummy variable		
Whether Chinese firm or not	Not significant	The interaction variables between CSR variable and its component, and the China variable are not significant

Results from the logistic regression indicate that Chinese firms do not generate more social conflict than projects financed by firms from other countries. The China dummy variable is not statistically significant. The predicted probability plots have different results when CSR and legacy are holding constant at their means. Hypothesis 1 is thus rejected. Variables for CSR quality and the China dummy variable are not highly correlated. The conclusion is that Chinese firms do not have significantly worse CSR than other country owned firms. Thus, H1 (a) is rejected.

Of the 1001 projects, 266 are associated with social conflicts. Among projects with conflicts, 19 projects have their head office in China and 247 have foreign headquarters and local headquarters. 4 conflicts are generated within Chinese mainland. Overall, Chinese companies have generated 15 conflicts in other countries where they have mining operations. The 4

conflicts within Chinese mainland are mainly caused by pollution. Reasons for the 15 conflicts that happened outside of Chinese mainland range from human rights violations, land rights issues, pollution, and labor relations.

Table 4.9.1 Conflicts Generated by Chinese Companies Outside of China

Countries	Company	Chinese state-owned	CSR Score	Legacy	Conflicts	Reason for conflict
Brazil	China Molybdenum	0	11	2	1	Pollution
Zimbabwe	Anhui Foreign Economic Construction (Group) Co., Ltd and Zimbabwe Mining Development	0	0	3	1	Human rights, river pollution; Salary; The company was accused by its employees of racism and abuse of workers.
Zambia	CNMCL (for 4 projects); Jinchuan Group International Resources (1 project)	1	3	3	5	Labour issue; At its most extreme, a 2005 explosion at a Chinese-owned explosives manufacturing plant in Chambishi killed 46 Zambian workers; the following year, riots in Chambishi over work conditions culminated in the shooting of at least five miners, allegedly by a Chinese manager; Miners' strike over pay and working conditions; wage
Serbia	Zijin Bor Copper d.o.o.	0	12	3	1	Pollution
Papua New Guinea	Guangdong Rising Assets Management	1	0	0	1	Human rights
Jamaica	Jiuquan Iron & Steel (JISCO)	0	1	3	1	Water rights and pollution
Guyana	Zijin Mining	0	12	3	1	Demand increase in salary; Guyanese workers who are upset that they stand to lose their jobs to foreign contracting companies aimed at reducing the cost of operations staged a protest
Ghana	Bosai Minerals Group (China)	0	2	3	1	Worker conditions
Eritrea	Zijin Mining	0	12	3	1	Human rights; forced labour, the company was originally Canada owned, later sold to China.
Australia	Yancoal (for both projects)	0	12	2	2	Harm the environment, aboriginal artefacts were

						destroyed; worker's agreement

There are 555 companies in the dataset in total, including 519 non-Chinese owned companies and 36 Chinese-owned companies. The average CSR score of the 36 Chinese MNEs in the mining industry is 7.389, the median is 8.5, the Minimum value is 0 and the Maximum value is 12. The average legacy score is 1.722, Median is 2, the Minimum value is 0 and the Maximum value is 3. The average CSR score for the 519 non-Chinese companies (including governments, other foreign companies, and private companies) is 6.713, the median is 8, the Minimum value is 0 and the Maximum value is 12. The average legacy score is 0.994, Median is 1, the Minimum value is 0 and the Maximum value is 3. Chinese MNEs have higher average CSR scores, thus H1 (a) was rejected.

There are 66 projects operated by Chinese companies, 45 of which are on China's mainland. Of the 66 projects, 19 projects are associated with social conflicts, 4 of which happened on the Chinese mainland. Overall, Chinese companies have generated 15 conflicts in other countries where they have mining operations. Among them, 9 conflicts were generated by private firms and 6 were generated by SOEs. There are a total of 29 projects that owned by 13 Chinese SOEs. The table below illustrates the 13 Chinese SOEs. This study builds another logistic regression model to test whether being a SOE affects the probability for social conflict. The dataset contains 36 Chinese companies. The result shows that the variable "SOE" is not statistically significant. The negative coefficient means that SOEs might generate more conflict. The current data analysis results are not sufficient enough to accept or reject H2 (b): Chinese SOEs are more likely to confront conflict than Chinese private firms.

Table 4.9.2 Chinese SOEs

	Company	Size	CSR sum score (0-12)	Legacy (0-3)
1	Aluminum Corp. of China Ltd - CHALCO	1	12	3
2	China Daye Non-Ferrous Metals Mining Ltd	1	12	2
3	China National Nuclear	1	8	3
4	China Railway Group	1	12	2
5	ChinaCoal - Pingshuo	1	7	3
6	CNMCL	1	3	3
7	Guangdong Rising Assets Management	1	0	0
8	Hulun Buir Shanjin Mining Industry Co., Ltd.	1	12	2
9	Hunan Baisha	1	0	0
10	Shenhua	1	12	2
11	Sinofert Holding Ltd.	1	6	0
12	Wuhan Iron and Steel Group Corp	1	10	3
13	Zhengzhou Coal Industry (Group) Company Ltd	1	2	1

Of the 66 projects that are operated by China, 48 (72.7%) are in countries where the freedom level is low (score 0), including Zimbabwe, Laos, Eritrea, and China; 10 (15.2%) are in countries where the freedom level scores 1, including Zambia, Serbia, Papua New Guinea, Liberia, and the Dominican Republic. Of all the projects, a total of 288 projects are operated by foreign firms. 51 (17.7%) are in countries where the freedom level is low (score 0). 55 (19.1%) are in countries where the freedom level is scores 1. Though the current data indicates Chinese mining MNEs have a higher probability of operating in politically risky countries, more studies are required to test this hypothesis. The table below tells the result for the first set of hypotheses.

Table 4.9.3 Hypotheses H1

Hypotheses	Result
H1: Chinese mining MNEs operations confront more conflict than projects financed by firms from other countries.	Reject
H1 (a): Chinese mining MNEs have worse CSR practices than other foreign firms.	Reject
H1 (b): Chinese SOEs are more likely to confront conflict than Chinese private firms.	Reject
H1 (c): Chinese mining MNEs often operate in politically risky countries (countries that have high levels of social unrest and political tensions), where the context is more prone to conflict.	Data not sufficient

Chapter 5 Cases Studies

In this dissertation, I adopted multiple methods of data collection. The combination of quantitative data on 1001 mining projects worldwide, spatial analysis for water risk level at each community, and qualitative data, including news articles and archival documents, provides multiple perspectives on mining-related social conflict. Data collected through these diverse approaches offer insights into the ways in which corporations in the mining industry interact with local communities—the central focus of the study—within varying national and local settings.

In the previous chapter, I analyzed the quantitative data. The results of that analysis indicate that current CSR has little impact on conflict and firms in the mining sector with higher legacy scores have higher probabilities to generate social conflict, controlling for other variables. If legacy matters, Chinese affiliation does not: Chinese firms do not confront more social conflict than other foreign-owned firms. Moreover, bad performance isn't just by Chinese firms, and a history of bad performance results in conflict regardless of firms' country of origin. Noteworthy is that the quantitative analysis is not sufficient to determine whether Chinese SOEs are more likely to confront conflict than Chinese private firms - Hypothesis H1 (b). In this chapter, I choose five cases to illustrate the impact of legacy conflicts at the community level and to explore whether and how differences between Chinese SOEs and private firms may or may not influence mining conflict.

The qualitative analysis controls for firm size and country-level variables—state wealth, reliance on extraction, and freedom level—all variables that were statistically significant in the quantitative portion of this study. Water risk level is also included as a control variable to account for grievances. To review, social conflicts are more likely to happen in poorer, freer

countries that rely heavily on extraction, and in cases involving major rather than junior firms. All five cases analyzed in this chapter are from the developing world.

The main purpose of the chapter is twofold. First, through close-up analysis I demonstrate, using illustrative examples, the main two findings of the quantitative portion of the study: (1) that legacy conflict matters, and (2) that Chinese firm ownership does not. Second, I explore a hypothesis that was not adequately tested in the quantitative analysis—the hypothesis about Chinese SOEs versus privately-owned Chinese firms. This chapter aims to offer additional insights for future research and provide broader applicability of the research results.

5.1 Case Selection

Table 5.2 presents the five cases analyzed in this chapter. As mentioned above, I selected cases from the developing world, a choice that helps control country-level factors to the extent possible. Also, all five projects are operated by major-sized firms.

Projects 1 through 4 are consistent with the quantitative results that companies with more legacy conflicts have a higher probability of generating social conflict. The four relevant companies are private. The reason that I chose four private companies to discuss in detail the logistic analysis results is that the dissertation looks at MNEs' CSR performances abroad, and most MNEs in this dataset that operate in a foreign country are privately-owned. For this dataset, evaluating projects that are operated by private foreign firms is thus feasible when controlling for the other variables. I include Project 5 to discuss whether Chinese SOEs have higher probability of confronting conflict than Chinese private firms – Hypothesis H1 (b). Because the logistic analysis finds that the Chinese SOE variable is not statistically significant, it is important to discuss the result in further detail using a case study. The case study for Project 5 and the comparison between Project 5 and Project 1 thus hopes to fill the gap I identified in the data analysis.

Section One of this chapter examines two cases: Project 1 and Project 2. Both are cases that are associated with social conflict and are operated by companies with high (maximum) legacy scores: Bosai Minerals scores 3 and Zamin Ferrous scores 3. Both companies are foreign private major-sized companies and have generated social conflict at the communities where they operate in Ghana and Brazil. Ghana and Brazil are both developing countries with lower state wealth and higher dependence on resource extraction as an economic activity.[205] Both Ghana and Brazil have higher freedom levels. Both operation sites have low-to-medium water risks. The comparison intends to explore why both Chinese and non-Chinese MNEs with a history of bad behavior have higher probability to confront social conflict.

Section Two investigates two cases: Project 3 and Project 4. Both are cases that are not associated with social conflict. They are both operated by companies with no legacy conflict: Shenzhen Zhongjin Lingnan Nonfemet and Caledonia Mining. They are both major private foreign companies. The cases also control for country-level variables to the extent possible. The Dominican Republic and Zimbabwe are both developing countries with lower state wealth and relatively higher reliance on extractive industries of their economy.[206] Both countries have relatively lower freedom levels. Both operation sites experience high water risks. This comparison aims to illustrate the quantitative result that both Chinese and non-Chinese MNEs with no legacy conflict record do not confront more social conflict in the future.

Section Three tests whether a Chinese-owned public firm performs even worse than a Chinese-owned private firm when it comes to legacy and conflict, as the literature leads us to expect. This section first discusses China Nonferrous Metal Mining Corporation Limited

[205] "The World Bank in Brazil – Overview," *The World Bank*, accessed February 28, 2023, https://www.worldbank.org/en/country/brazil/overview; "The World Bank in Ghana – Overview," *The World Bank*, accessed February 28, 2023, https://www.worldbank.org/en/country/ghana/overview.
[206] "The World Bank in Dominican Republic – Overview," *The World Bank*, accessed February 28, 2023, https://www.worldbank.org/en/country/dominicanrepublic/overview; "The World Bank in Zimbabwe – Overview," *The World Bank*, accessed February 28, 2023, https://www.worldbank.org/en/country/zimbabwe/overview.

(CNMC)'s operation at the Chambishi mine site in Zambia. I then compare this project with Project 1, which is operated by a Chinese private firm. They both have high legacy scores and confronted conflict. But one is public, and one is private. The comparison examines close-up how the two firms differ in their choices and behavior. It tests if the SOE's performance is even worse than that of the private firm, or if the SOE does something else that isn't about legacy but that seems worse than what the private firm does. Country-level factors are also controlled for. Zambia is a developing country with lower state wealth and higher dependence on resource extraction for its economy.[207] The state also has relatively lower freedom level. The water risk at the operation site is 2, which indicates that the site has low to medium level water risk. The comparison between Chinese SOE's and private firm's CSR performance brings to the forefront the question of how much the Chinese government controls its MNEs.

The variety of comparisons in this chapter facilitates careful comparisons of both Chinese and non-Chinese MNEs' CSR performances, at the project level. The analysis contributes to our understanding of the quantitative analysis results by revealing causal mechanisms, and more broadly, our knowledge of mining conflict and development. Moreover, it points direction for future studies. For instance, the comparison between the Awaso and Amapa System mining project indicates that neither company which operated the mining site has a record of having a close relationship with local governments. A firm's relations with local governments would thus become an additional possible variable that warrants further exploration, in future quantitative studies.

Table 5.1 Comparative Cases

[207] "The World Bank in Zambia – Overview," *The World Bank*, accessed February 28, 2023, https://www.worldbank.org/en/country/zambia/overview.

	Project	Wealth 0-5	Reliance on extraction 0-5	Freedom level 0-2	Water risk level 0-5	Conflict	Company	Ownership	CSR Score 0-12	Legacy 0-3
Project 1	Awaso mine, Ghana	$2363.3 per capita	3	2	2	Yes	Bosai Minerals (China)	Private	2	3
Project 2	Amapa System mine, Brazil	$7507.2 per capita	2	2	2	Yes	Zamin Ferrous (Anglo-Swiss)	Private	0	3
Project 3	Cerro De Maimon mine, the Dominican Republic	$8476.8 per capita	2	1	4	No	Shenzhen Zhongjin Lingnan Nonfemet (China)	Private	10	0
Project 4	Blanket mine, Zimbabwe	$1773.9 per capita	4	0	3	No	Caledonia Mining (Jersey)	Private	11	0
Project 5	Chambishi mine, Zambia	$1137.3 per capita	4	1	2	Yes	China Nonferrous Metal Mining Co., Ltd. (CNMC) (China)	SOE	3	3

5.2 Section One: Conflict Cases, High Legacy Score

This section discusses two cases: the Awaso mining project in Ghana and the Amapá System Mining Project in Brazil. According to the World Bank, Ghana's state wealth is US $2,363.30 GDP per capita and Brazil's state wealth is US $7,507.20 dollars per capita.[208] Brazil's mineral rent is 1.2% of GDP while Ghana's mineral rent is 2.3% of GDP.[209] Both countries are

[208] World Bank Data, GDP per capita.
[209] World Bank Data, Mineral Rents.

developing countries with a low level of state wealth, relatively high level of reliance on extraction as part of their states' economy, and high democratic levels. Both two project regions experience low to medium water risk. Controlling for these variables facilities the comparison between MNEs' CSR performances. The case comparison finds that legacy accounted for conflict in both the case involving a Chinese firm and the case involving a non-Chinese firm. The analysis traces how legacy mattered, in both cases.

Table 5.2 Cases for Comparative Analysis

Projects	Wealth	Reliance on extraction	Freedom level	Water risk level	Ownership	Conflict	Form of conflict	Protesters	Reasons for conflict
Project 1 Awaso, Ghana	$2363.3 per capita	3	2	2	Bosai Minerals (China); CSR score 2; legacy score 3	Yes	Road block; violence such as burning facilities; peaceful demonstrations	Worker and Residents	Poor working conditions (workplace safety); low salaries; environmental impacts; lack CSR publication
Project 2 Amapa System, Brazil	$7507.2 per capita	2	2	2	Zamin Ferrous (Anglo-Swiss), CSR score 0; legacy score 3	Yes	Allegation; complaints	Residents and government	Environmental damages; Subsistence; lack CSR publication

5.2.1 Project 1: The Awaso mining project

The discussion of the first project illustrates how more legacy conflicts contributed to conflict over the Awaso mining project, owned by the Chinese private firm Bosai Minerals.

The Awaso is an open-pit bauxite mining operation located in the Bibiani-Anhwiaso-Bekwai district in the northwestern part of Ghana. Bibiani-Anhwiaso-Bekwai experiences low-to-medium water risk. The region has rich soil, and the climate is suitable for most traditional and non-traditional crops. According to the 2021 population and housing census, the population stands at 167,971.[210] There are six forest reserves in the district which serve as tourist attractions.[211] The Sefwis people predominantly lives in the region.[212]

The district has abundant mineral deposits: gold and bauxite. Three mining companies have operations in the area: Chirano Gold Mines Limited, Noble Gold Mines Limited, and Bosai Minerals.[213]

The Awaso mine is one of the largest bauxite mines in the country. In November 2022, the Ghana company Ofori Poku Company Limited (OPCL) took over the management of the mine. However, prior to the takeover, the mine had been operated by the Chinese-owned Bosai Minerals Group. Bosai exported the raw materials to its refinery in Chongqing province, China.[214]

Bosai faced conflict with local workers and residents over their working conditions and the environmental impacts of the company's mining activities. In June 2019, workers at the Awaso mine protested for two days over concerns about poor working conditions and low salaries. Workers expressed their dissatisfaction with these concerns, that they felt unsafe working for

[210] "Bibiani-Anhwiaso-Bekwai Municipal Assembly," *Bibiani-Anhwiaso-Bekwai Municipal*, accessed February 28, 2023, https://www.ghanadistricts.com/Home/District/202.
[211] The Sefwi are an Akan people. It is a Akan sub-group live predominantly in Western North Region of Ghana. The Akan people are a kwa group living in Ghana, parts of Ivory Coast and Togo. James Stuart Olson,*The Peoples of Africa: An Ethnohistorical Dictionary*, Greenwood Publishing Group, 1996.
[212] Nosmot Gbadamosi, "Ghana high court considers NGO case against bauxite mine," *China Dialogue*, October 21, 2020, https://chinadialogue.net/en/nature/ghana-high-court-considers-ngo-case-against-bauxite-mine/.
[213] "About BABDA," *Bibiani-Anhwiaso-Bekwai Municipal Assembly*, accessed February 28, 2023, https://babma.gov.gh/about-babda/.
[214] Kizito Cudjoe, "Ghana Bauxite Company to Ramp Up production to 2m MT annually," *B&FT Online*, November 15, 2022, https://thebftonline.com/2022/11/15/ghana-bauxite-company-to-ramp-up-production-to-2m-mt-annually/.

the company. They also complained about the company's strategies regarding workers' well-being, including benefit packages and compensation. The protesters blocked the road and burned six Bosai administrative offices and several trucks used for loading the mined bauxite. [215] The Chinese managers of the company escaped during the protests. The mining company's activities were halted because of the protest.[216]

Added to workers' concerns about labor conditions were complaints by local residents about the environmental impacts of Awaso. Also in 2019, a group of residents staged a demonstration. They said that the local water sources were contaminated by the mining activities, and that this contamination would harm nearby residents' health. They demanded that Bosai address the environmental problems, such as pollution. Moreover, they demanded that the company employ more local people and provide better working conditions. The protest unfolded without violence, and the protesters handed over a petition to local government officials demanding that measures be implemented to tackle the issues raised. It remains unclear what exact measures were put in place in response to the protest, although it is probable that the concerns expressed by the demonstrators were acknowledged by both Bosai and the local authorities. [217]

Founded in 1994 by a Chinese entrepreneur, Bosai Minerals Group is a privately-owned multinational company headquartered in Chongqing, China, and a major player in the global aluminum industry. It has been listed as one of the top 500 Chinese private enterprises. Bosai specializes in the production and sale of alumina, aluminum, and other related products such as aluminum ingots, billets, wire rods, cement, construction materials, and electrical power. In

[215] Koblah Aklorbortu, "Chaos As Enraged Awaso Bauxite Workers Set Buildings, Vehicles Ablaze," *Graphic Online*, June 2019, https://www.graphic.com.gh/news/general-news/ghana-news-chaos-enraged-awaso-bauxite-workers-set-buildings-vehicles-ablaze.html.
[216] Gbadamosi, 2020.
[217] "Bosai Group Sets Records Right On Alleged Meagre Salaries After Workers' Protest," *GhanaWeb*, July 1 2019, https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Bosai-Group-sets-records-right-on-alleged-meagre-salaries-after-workers-protest-759587**;** Gbadmosi, 2020.

addition to its location on China's mainland, the firm also has mining and refining operations in Guyana and West Africa, and trading operations in North America, Europe, and Asia. [218]

The company has a CSR score of 2 out of 12. Its website is in both Chinese and English languages. Despite Bosai's claim on its website that sustainability is an integral part of its culture, the site lacks documentation about sustainability, CSR, or any other words or files related to community engagement, environmental protection, and labor relations. Bosai is not a member of the UN Global Compact.[219]

Other than its website, Bosai has only one record of its community engagement strategies: the firm was involved in supporting Linden, the second largest city of Guyana's social and human development procedures. According to Bosai's Public Relations Officer, Vanessa Mitchell-Davis, the company has contributed to several programs for local development. For instance, the company helped renovate the Mackenzie Sports Club (MSC) swimming pool at a cost of $10 million and helped with road construction. The company also distributed food baskets annually to seniors during the staging of the Linden Town Week.[220]

Bosai has a high legacy score of 3. It generated concerns and conflicts in Linden also. The company's unregulated mining practices caused environmental and health concerns. In December 2019, Bosai faced a fine of approximately GYD $1 million (around US $4800 dollars) due to a breach in its tailings pond at its bauxite operation site in Linden, Guyana. [221] The incident marked the second such fine within a month of the Linden operation - the company was fined GYD $1 million previously for discharging wastewater into the Kara-Kara Creek

[218] "About Us," *Bosai Group*, accessed February 28, 2023, http://en.cqbosai.com/index.php/about.
[219] I checked the website of Bosai Group and found no CSR publication or documents. The website was checked regularly to keep the information up to date. The Chinese version of the website is not accessible. I also check it regularly to make sure it is not an internet connection problem.
[220] Staff Reporter, "BOSAI pledges support for Linden in areas of social, human development," *Guyana Chronicle*, December 21, 2019, https://guyanachronicle.com/2019/12/21/bosai-pledges-support-for-linden-in-areas-of-social-human-development/.
[221] "Horrendous working conditions exposed at Bosai, Linden," *iNewsGuyana*, June 6, 2015, https://www.inewsguyana.com/horrendous-working-conditions-exposed-at-bosai-linden/.

from the same tailings pond. The flooding caused by the breach has affected several residents' houses downslope. The issue stemmed from the company's decision to deposit wastewater in the pond, which contains harmful heavy metals that can adversely impact human health.[222] The dust emissions in Wismar from the Linden operation have been a particular concern, with the Environmental Protection Agency (EPA) engaging in discussions with the Guyana Geology and Mines Commission (GGMC) and Bosai to address the issue. In areas beyond Linden in Guyana, unregulated mining practices caused pollution and flooding in the community of Noitgedacht, which located closely to the Linden site, leading to concerns from residents. Gavin-Greene Marshall, who has been a resident at the community, said that the problems were caused by the company's dumping of wastewater into the river. The company did not have a proper system/technology for wastewater treatment.[223]

The conflict at the Awaso open-pit bauxite mine highlights the challenges faced by MNEs in developing countries. Bosai Minerals Group's operations in Awaso had negatively impacted the well-being of local workers and residents, and the environment. The protests at the mine site and the concerns raised by the residents reflect the need for companies to prioritize CSR practices at the community level. The conflict in Guyana demonstrates that Bosai had a larger record of poor CSR practices and further shows that legacy is important in explaining social conflict.

5.2.2 Project 2: The Amapá System mining project

[222] Staff Editor, "Bosai fined for tailings pond discharges into Kara Kara Creek," *Stabroek News*, January 2, 2020, https://www.stabroeknews.com/2020/01/02/news/guyana/bosai-fined-for-tailings-pond-discharges-into-kara-kara-creek/?fbclid=IwAR24Mt53HUFWWs3to2Z3K_P7ULgNTQZSsliWfZoy1zbEY5uLQnUCFBzBPks; Denis Chabrol, "Bosai's bauxite production halted, to be fined another GYD$1 million," *Demerara Waves*, January 14 2020, https://demerarawaves.com/2020/01/14/bosais-bauxite-production-halted-to-be-fined-another-gyd1-million/.

[223] Stabroek News, "Environment body pressing Bosai on bauxite dust pollution," *Stabroek News*, September 20, 2008, https://www.stabroeknews.com/2008/09/20/news/guyana/environment-body-pressing-bosai-on-bauxite-dust-pollution/; Vanessa Braithwaite, "Bosai mines causing pollution, flooding in Noitgedacht," *Guyana Chronicle*, June 28, 2017, https://guyanachronicle.com/2017/06/28/bosai-mines-causing-pollution-flooding-in-noitgedacht/.

Like the Awaso case, poor legacy records also contributed to conflict over a project in Amapá, Brazil, though the Amapá project was not owned by a Chinese firm. The Amapá System Mining project is owned by private Anglo-Swiss company Zamin Ferrous. The company has generated social conflict at this mining site as discussed here.

The Amapá System mining project, situated in the northern state of Amapá in Brazil, extracted high-quality iron ore reserves in the region.[224] The extracted ore was then processed and transported to international markets.[225]

The Amapá region experiences low-to-medium water risk, as in the Awaso case. The Amazon rainforest dominates most of the Amapá project area, and the remaining area is covered with savannah and plains. [226] The region's Tumucumaque Mountains National Park is the largest tropical forest park in the world.[227] Amapá has the second smallest population (0.4% of the Brazilian population) of all 26 Brazilian states.[228]

The Amapá System mining project not only provided substantial employment opportunities but also contributed significantly to the region's economic activity, generating important revenue for the Brazilian government. Mining company Zamin Ferrous acquired the project from Anglo American in 2013 for US $266 million dollars.[229]

Despite its importance for the region, the project attracted controversy due to its social and environmental impacts. In 2014, Zamin Ferrous had its bank accounts and properties frozen,

[224] "Amapá Iron Ore Mine," *Cadence*, accessed February 28, 2023, https://www.cadenceminerals.com/projects/amapa-iron/.
[225] Ibid.
[226] "Wayampi, Amapari in Brazil," *Joshua Project*, accessed February 28, 2023, https://joshuaproject.net/people_groups/15897/BR.
[227] "Tumucumaque Mountains," *National Parks*, accessed February 28, 2023, https://national-parks.org/brazil/tumucumaque-mountains.
[228] "Brazil, Amapá," *City Population*, Accessed February 28, 2023, http://www.citypopulation.de/en/brazil/cities/amapa/.
[229] Bnamericas, "Anglo American concludes sale of Brazil's Amapá iron ore operation to Zamin Ferrous," *Bnamericas*, November 4, 2013, https://www.bnamericas.com/en/news/anglo-american-concludes-sale-of-brazils-amapa-iron-ore-operation-to-zamin-ferrous.

up to a value of 50 million Brazilian Reals (approximately US $19 million dollars), by a civil court following allegations of environmental damage at the mining site. The public prosecutor claimed that the company polluted several streams in the municipalities of Serra do Navio and Pedra Branca do Amapari and assigned Zamin Ferrous 60% of the responsibility for the harm caused. The project was also blamed for causing deforestation, water pollution, and other environmental damage.

Local communities raised concerns over the mining impacts on their traditional way of living. In 2015, the Brazilian government suspended the project due to environmental violations, leading to the bankruptcy of Zamin Ferrous. In 2020, the project was acquired by a consortium led by the Swiss commodity trader Trafigura and the Abu Dhabi-based fund Mabadala. The consortium has been working to restart the operations while also addressing environmental and social concerns. However, because of Zamin Ferrous' poor past performance and its failure to meet social obligations, the new operators are facing legal and regulatory challenges related to labor, environmental and human rights issues.[230]

Zamin Ferrous is an Anglo-Swiss multinational mining company with headquarters in New Jersey; offices in Sao Paulo, Brazil, Montevideo, Uruguay, and Dubai, UAE; and representative offices in London, UK and Zug, Switzerland. Pramod Agarwal, a former billionaire from India, founded the company, which specializes in the exploration and development of iron ore projects in Latin America. The company's objective is to become a significant supplier of direct

[230] Bnameriacas, "Court freezes assets of Zamin's Amapá iron ore operations," *Bnameriacas,* December 31, 2014, https://www.bnamericas.com/en/news/miningandmetals/court-freezes-assets-of-zamins-amapa-iron-ore-operations/.

reduction and blast furnace iron ore pellet fines[231] to the global steel industry.[232] Zamin Ferrous had other mining assets: Valentines in Uruguay and Greystone in Brazil. In addition to these, the company owned several major iron ore projects, including Zamapa and Susa.[233]

Zamin Ferrous' poor CSR practices are evident in its CSR documentation—or lack thereof—and in its engagement with local communities in cases other than that of the Amapá System. The company does not have a website. No CSR documentation could be found online.[234]

The company has a bad legacy record. It has been criticized for its performance in other regions of Brazil and in other countries too, including Uruguay. The Pedra de Ferro iron ore mining project located in Caetité, in the Bahia region of Brazil, experienced conflict from 2009 to 2017. Those conflicts mainly revolved around the environmental impacts of iron ore extraction and the acquisition of land. The project posed threats to thousands of families from Caetité, who stand to lose their homes and sources of livelihood to benefit a foreign company – Zamin Ferrous. In September 2013, local communities blocked the entry of 30 workers into the area surrounding the Pedra de Ferro River, where the company had planned to clear part of the forest.[235]

In Urugay, Zamin Ferrous conducted iron ore exploration in the community of Valentines, starting in 2008. This region is mainly used for cattle ranching, rice, soybean, wheat, and corn cultivation. Since 2009, farmers and rural workers in the area have increasingly opposed the

[231] According to Metso: Outotec, a frontrunner in solutions and services for aggregates, minerals processing and metals refining industries globally, "Iron ore fines are agglomerated into pellets and then indurated using a furnace to create iron ore pellets," *Metso: Outotec*, accessed February 28, 2023, https://www.mogroup.com/mining/pyro-processing/iron-ore-pelletizing/#:~:text=Iron%20ore%20fines%20are%20agglomerated,the%20process%20to%20make%20steel.&text=Designed%20and%20supplied%20the%20largest%20straight%20grate%20systems%20in%20the%20world.

[232] "Zamin Resources Limited," *LinkedIn*, accessed February 28, 2023, https://www.linkedin.com/company/zamin-resources-limited/.

[233] Bnamericas, "Zamin Resources Ltd.," *Bnamericas*, accessed February 28, 2023, https://www.bnamericas.com/en/company-profile/zamin-resources-ltd.

[234] I searched the internet many times and did not find an available company website.

[235] "Iron ore mining project Pedra de Ferro in Caetité, BA, Brazil," EJAtlas, accessed February 28, 2023, https://ejatlas.org/print/iron-ore-mining-in-caetite-ba-brazil.

project. The opposition initially manifested through roadblocks but gained national visibility at the start of 2011 when more than 20 social and environmental organizations formed a coalition called the Movement for a Sustainable Uruguay to oppose large-scale open-pit metal mining in the country. Opponents of the project criticized Zamin Ferrous for downplaying the environmental impact that could result from the project and expressed concerns about pollution from the mine site runoff, habitat disruption as the pipeline construction went through internationally recognized wetlands, and contamination of coastal areas (which happened when water that is pumped with the iron ore through the pipeline was discharged into the Atlantic Ocean).[236]

The company's operations in Uruguay have led to increasing concerns and disputes in the region, despite initially making peaceful agreements. The mining activities are conducted around the clock, with floodlights and generators used to illuminate the area, creating a constant flow of human and vehicular traffic. This heavy traffic of around 25 to 30 trucks, even during the rainy season, has caused significant damage to the ground and harmed agricultural production. The relationship between local producers and the company has deteriorated, leading to legal action.[237]

5.2.3 Conclusion

The comparison between the Awaso and Amapá conflicts shows, through process tracing, how firms' bad legacy record contributes to social conflict, controlling for state wealth, reliance on extraction, freedom level and water risk level.

[236] "Mega-mine plan prompts referendum in Uruguay," *EcoAmericas*, July 2011, https://www.ecoamericas.com/issues/article/2011/7/069C1BE5-DFE7-4A14-826D-ECFDD1AADBA5.
[237] Observatorio Minero del Uruguay, "Mining project threatens Uruguay ecosystems," *MAC: Mines and Communities,* April 27, 2011, http://www.minesandcommunities.org/article.php?a=10848.

The case studies show that both companies have contributed to many conflicts before. Both conflicts were caused by the companies' poor performance at the mining sites. The first conflict at the Awaso mining site in Ghana took the forms of road blocking and burning important facilities. The protesters, workers from Bosai, complained about poor working conditions, safety issues, low salaries, and the project's environmental impacts. The second conflict at Awaso took the form of peaceful demonstration by residents complaining about water contamination and associated health problems. They then demanded that the company address these problems, by filing a petition with local government officials. The conflict at the Amapá System mining site in Brazil is related to the environmental damages caused by Zamin Ferrous at the mining site, including stream and water pollution, and deforestation. Residents also have raised concerns over the impact of mining on their subsistence. The Brazilian government even suspended the project due to the company's environmental violations. Zamin Ferrous finally went bankrupt.

Finally, the poor CSR practices of both companies are evident if we examine legacy conflicts. Both companies have no CSR documentation and have limited CSR strategies. Bosai Minerals' website lacks systematic documentation/description for its CSR. There is no written record of Zamin Ferrous' CSR strategies. Bosai's absence of waste-treatment procedures caused conflict regarding environmental and health issues. Zamin Ferrous was criticized for downplaying the environmental impact of its mining operations, such as pollution and land disruption. The company also caused problems with its acquisition of local lands and the heavy traffic damage to the ground.

Existing sources show that neither company has a record of having a close relationship with local governments. All of the associated social conflicts occurred at the community level and directly targeted the companies' poor CSR performances. The cases in this section illustrate that environmental protection strategies and employees' well-being are important factors that

determine the quality of CSR performance. The comparison in this section thus supports the quantitative result, that bad legacy records can lead to social conflict.

5.3. Section Two: Non-Conflict Cases, No Legacy Conflict

This section discusses two cases: the Cerro de Maimón mine in the Dominican Republic and the Blanket mine in Zimbabwe. The two companies in this section both have no legacy conflict record. Both are developing countries with relatively lower levels of state wealth. According to the World Bank, the Dominican Republic's state wealth is US $8476.8 GDP per capita and Zimbabwe's state wealth is US $1773.9 per capita.[238] These levels place both countries in the middle-developed category. Zimbabwe relies more on resource extraction as part of its state's economy than does the Dominican Republic, with a level of 4 versus level of 2 for the Dominican Republic. This difference is evident in the contributions of extraction to the countries' GDP: the Dominican Republic's mineral rent is 1.3% of GDP while Zimbabwe's mineral rent is 3.9% of GDP.[239] Both countries have low freedom levels, with the Dominican Republic at a level of 1 and Zimbabwe at a level of 0. The Cerro de Maimón mine site experiences high water risk while the Blanket mine site experiences medium to high water risk.

[238] World Bank data, GDP per capita.
[239] World Bank Data, Mineral Rents.

Table 5.3 Cases for Comparative Studies

Projects	Wealth	Reliance on extraction	Freedom level	Water risk level	Ownership	Conflict	CSR performance
Project 3 Cerro de Maimón mine, the Dominican Republic	$8476.8 per capita	2	1	4	Shenzhen Zhongjin Lingnan Nonfemet CSR score 10; legacy score 0	No	Environmental protection strategies; community engagement; local government relationship building; employment of local workers; employee wellbeing; education and empowerment; social services; community social and economic development; comprehensive CSR publication
Project 4 Blanket mine, Zimbabwe	$1773.9 per capita	4	0	3	Caledonia Mining CSR score 11; legacy score 0	No	Sustainable development; health and safety; employee-wellbeing; community relations; Indigenous ownership of the mine; renewable energy technology and investment; comprehensive CSR publication

5.3.1 Project 3: The Cerro de Maimón mining project

Project 3 is a case of a Chinese firm that has no legacy conflict record that managed to avoid conflict at the mining site. Cerro de Maimón is an operating copper and gold mine project in the Monsenor Nouel Province of the Dominican Republic. Shenzhen Zhongjin Lingnan Nonfemet Co., Ltd. (深圳市中金岭南有色金属股份有限公司) is the Chinese mining company that operates at the property. The company specializes in the manufacturing and distribution of nonferrous metals and associated products. Established in 1984, the company has emerged as a leading producer of zinc, lead, and silver in China. In response to the Chinese national Belt and Road initiative, the company actively has increased its investment in multiple industries and expanded the scope of business cooperation. Zhongjin Lingnan states that it intends to seek resource expansion opportunities in Latin America and promote the friendly relationship between China and Latin America based on the principles of mutual respect and

mutual benefit. The company does not have a record for legacy conflict and there is no record of existing social conflict at this mining site.

The project contains approximately 6 million tons of open-pit copper and gold reserves. The mine, processing facilities, and related infrastructure were constructed between December 2006 and October 2008, at a cost of roughly US $69 million. The mine is located about 70 kilometers northwest of Santo Domingo, the capital of the Dominican Republic, and approximately 4 kilometers east of the town of Maimón, which has a population of approximately 25,000 people. The area is a significant mining district, with two major mineral deposits nearby, including the Falcondo nickel mine/smelter complex and the Pueblo Viejo gold operation of Barrick Gold/Goldcorp Inc., both located within 15 kilometers of Maimón. There is a paved Maimón-Cotui road southeast of Maimón for about 2 kilometers. To reach the Cerro de Maimón mine, one can then take an additional 2 kilometers on a surfaced road.[240] [241]

The company has a recorded history of good and responsible CSR performance. To manage tailings and potentially acid-generating (PAG) waste rock, the company uses a co-disposal facility designed by Golder Associates. The company practices concurrent reclamation, wherein affected areas are re-vegetated with native species as soon as they are ready for reclamation. The company ensures that all infrastructure is removed, and the area is covered with topsoil at mine closure. Since 2005, the company has been collaborating with local government and communities to achieve its environmental and sustainable development goals. It employs over 80% of its workforce from within the Monseñor Nouel Province, providing training and employment opportunities to people from local communities. It also established the Fundación Mina Cerro de Maimón, a non-profit foundation that focuses on improving

[240] "Cerro De Maimón," *Perilya*, accessed February 28, 2023, http://www.perilya.com.au/our-business/operations/cerro-de-maimon.
[241] "Cerro De Maimon Copper and Gold Mine," *Mining Techonology*, December 21, 2011, https://www.mining-technology.com/projects/cerro-de-maimon-copper-and-gold-mine/.

education and healthcare in nearby villages. Additionally, the company sponsors classes in various fields, supports churches and schools, and delivers food baskets to families in need during Christmas time.[242]

To highlight their dedication towards CSR, the company has published a comprehensive CSR report on its official website. The latest report from 2021 was released in March 2022, while reports from 2018 to 2021 are also available. The reports provide insights into the company's CSR strategies for community engagement, environment protection, technology innovation, and employee wellbeing.[243] The company's website also features these areas.

Due to Zhongjin Lingnan's dedication in the realm of CSR, the company has a good reputation in the Dominican Republic when it comes to its mining operations. In 2019, a delegation of Senators from the Dominican Republic visited Zhongjin Lingnan Company and praised its contributions towards promoting local employment and economic development. They also highly appreciated the company's efforts towards ecological and environmental protection and expressed their desire to introduce advanced process technology and management experience from China to deepen cooperation with Zhongjin in areas with mineral resources. Zhongjin Lingnan has established extensive and friendly cooperative relationships with the Dominican government and all sectors of society. The company closely combines its own economic goals with local development agendas. The company has become a successful example of mining development in the Dominican Republic and has made significant contributions to the development of the local economy and community. Dominican President

[242] Perilya, 2023; "Shenzhen Zhongjin Lingnan Nonferrous Metals Co., Ltd. - 深圳市中金岭南有色金属股份有限公司," *BaiduBaike - 百度百科*, accessed February 28, 2023, https://baike.baidu.com/item/%E6%B7%B1%E5%9C%B3%E5%B8%82%E4%B8%AD%E9%87%91%E5%B2%AD%E5%8D%97%E6%9C%89%E8%89%B2%E9%87%91%E5%B1%9E%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B8/7360571?fr=aladdin%E3%80%82.
[243] Ibid.

Medina (2012–2020) also praised Zhongjin Lingnan's contributions towards promoting economic and social development in the country.[244]

5.3.2 Project 4: The Blanket gold mining project

Project 4 is a case of a non-Chinese firm that has no legacy conflict record and managed to avoid conflict at the mining site. Located in southern Zimbabwe in the province of Marabeleland, about 15 kilometers northwest of the town of Gwanda, Blanket Gold Mine is an underground mine and has been in operation since 1904 at the northwest end of the Gwanda Greenstone Belt. The mining region experiences medium to high water risk. Blanket Gold Mine spans an area of around 1,800 hectares and comprises several underground mining operations. Its primary output is gold, with copper as a byproduct. The mined ore is processed at the Blanket gold processing plant, which can handle up to 1.1 million tons annually. As of 2021, the mine's proven and probable gold reserves were approximately 566,000 ounces, and it was expected to produce between 61,000 and 67,000 ounces of gold in the future. Blanket Gold Mine has been a significant contributor to the local economy and provides employment to around 1,600 people, including contractors.[245]

Caledonia Mining Corporation now operates the mine. The company acquired the mining site from Kinross Gold Corporation in 2006. Caledonia specializes in the exploration, development, and operation of gold mines in Zimbabwe. It was founded in 1992 and is headquartered in Jersey, an island in the English Channel. The company's primary asset is the

[244] "Dominican Republic Senator Delegation Visits Zhongjin Lingnan Company," *Nonfemet*, September 4, 2019, https://www.nonfemet.com/info/1832; "Zhongjin Lingnan invests no more than 296 million US dollars in the construction of a Dominican copper zinc mine," *Mymetal*, November 27, 2019, https://m.mysteel.com/19/1127/15/69871143B2B81DCB_abc.html.
[245] "Operations: Blanket Gold Mine," *Caledonia Mining Corporation Plc*, accessed February 28, 2023, https://www.caledoniamining.com/operations/blanket-gold-mine/; "Blanket Gold Mine," *Mining Technology*, January 24, 2020, https://www.mining-technology.com/projects/blanket-gold-mine/.

Blanket Gold Mine. It also has other exploration and development projects in Zimbabwe, South Africa, and Zambia.

Caledonia has no legacy conflict record and has invested a great deal of energy into CSR efforts. The company has a strong track record in gold exploration and extraction and has made significant investments in its mine operations in Zimbabwe, including upgrades to the processing plant, underground infrastructure, and exploration activities. The company has also introduced modern mining techniques to enhance efficiency and safety. One of the company's key priorities is to contribute to the local economy by employing Zimbabwean workers (99%) and using local contractors and suppliers (25%). Additionally, the company is committed to sustainable development and has implemented various environmental and social programs in the communities where it operates. Its CSR initiatives cover many areas including education, health, agriculture, women and youth empowerment, and environment, and charity. The company published an ESG report in 2020, which highlights its commitment to sustainable development, health and safety, employee-wellbeing and community relations. Of the 52 pages, 4 pages specially talked about CSR. On its website, under the ESG section, the company indicates that its CSR investments in 2020 is US $1.7 million.[246]

This case study has shown Caledonia's effectiveness in CSR performance, especially with no history of conflict, at deterring any conflict over Blanket. After six years of such success, the mine was transferred to the Zimbabwean people, a move that further benefited communities in the area of the mine. The company "was the first indigenized Zimbabwean gold miner in 2012, when 51% of Blanket was either sold or donated to Indigenous Zimbabweans. Caledonia facilitated the acquisition of a 10% shareholding in Blanket by a trust in favor of our employees (BETS), a 16% shareholding by the National Indigenization and Economic Empowerment

[246] Ibid.

Fund (NIEEF) of Zimbabwe and a 15% shareholding by Fremiro Investments (Private) Limited, a company owned by indigenous Zimbabweans. A further 10% shareholding in Blanket was also donated to the Gwanda Community Share Ownership Trust for the benefit of the local community."[247] With the changes over the years, the local community now owns 10% of the Blanket project. The company also contributes to the development of the Zimbabwean economy through paying taxes, royalties and other duties. The procedures are transparent.[248]

In 2022, Caledonia Mining has also brought a new solar power plant at the Blanket mine site on stream. The mine has been receiving power from Zimbabwe's national electricity supplier ZESA, but the supply has been unstable in recent years. Power outages happened more frequently. Caledonia started the construction of the solar plant in 2021. The new plant is expected to provide around 27% of Blanket mine site's average daily electricity demand. Mark Learmonth, the chief executive of Caledonia said that: "With 21 percent of Blanket's on-mine costs relating to energy usage, this solar plant is a very important project for the company as it will improve the quality and security of Blanket's electricity supply and provide environmental benefits through cleaner energy. The solar power will displace more expensive power from the grid and from the diesel generators and is expected to reduce Caledonia's consolidated cost per ounce of gold produced by approximately US$37."[249]

5.3.3 Conclusion

This section has suggested that both companies, regardless of their ownership, have no legacy conflict record and substantial commitment to CSR, which enabled companies to avoid conflict. Shenzhen Zhongjin Lingan Nonfemet has been working closely with local

[247] "ESG – Our Communities and Society – Local shareholding in Blanket," *Caledonia Mining Corporation Plc.*, accessed February 28, 2023, https://www.caledoniamining.com/esg/our-communities-and-society/.
[248] "ESG – Our Communities and Society – Payments to government," *Caledonia Mining Corporation Plc.*, accessed February 28, 2023, https://www.caledoniamining.com/esg/our-communities-and-society/.
[249] Alastair Ford, "Caledonia Mining brings new solar power generation capability on stream at the Blanket gold mine," *proactive*, November 14, 2022, https://www.proactiveinvestors.com/companies/news/998222/caledonia-mining-brings-new-solar-power-generation-capability-on-stream-at-the-blanket-gold-mine-998222.html.

government and communities to achieve its environmental and sustainable development goals. On community engagement, the company has helped with local education and health care. Moreover, the company has strived to provide social services, including delivering food and organizing class, and contribute to the local development. In the area of environmental protection, the company has waste management strategies and has generated responsible practices at the community. For instance, the company cleaned up its infrastructure at the mine-closure stage and helped with land reclamation. In terms of employee wellbeing, the company has employed local workers and has provided training and employment opportunities for locals.

Caledonia Mining Corporation is also committed to sustainable development and the health and well-being of local communities. One important company measure was to grant Indigenous ownership of the mine. In this way, the company has put the community at a very important position to make future decisions of the mine through empowering them with the management power. Furthermore, the company introduced renewable energy technologies to the mine site.

The two companies have a good relationship with local government, which has further helped to gain support from people in the region. The case study in this section supports the quantitative analysis result that both Chinese and non-Chinese companies have lower probability to confront conflict with fewer legacy conflict record.

5.4 Section Three: Chinese SOEs vs Private Firms

Table 5.4 Project 5 – Chambishi Mining Project

	Project	Wealth	Reliance on extraction	Freedom level	Water risk level	Conflict	Company	CSR score
Project 5	Chambishi, Zambia	1	4	1	2	Yes, labor	China Nonferrous Metal Mining Co., Ltd.	3

In this section, I discuss a case involving the Chinese SOE China Nonferrous Mining Group Co., Ltd., (CNMC, 中国有色矿业集团有限公司) to compare it with the Project 1 discussed in the former section regarding Chinese private-owned companies. The purpose is to tease out the extent to which state ownership might bring worse CSR and conflict.

The Chambishi copper mine is a town in the Copperbelt province of Zambia, a developing country with a relatively low level of state wealth: according to the World Bank, Zambia's state wealth is US $1137.3 dollars per capital. Zambia's mineral rent is 4.1% of GDP.[250] The country is thus highly reliant on mineral rents as part of its national economy, with a level of 4. The country also has a low freedom level of 1. The project site experiences low-to-medium water risk.

The town of Chambishi is located on the T3 Road between the cities of Kitwe and Chingola. The 2023 census indicates that Chambishi's population is around 11,073.[251] Chambishi is predominantly a mining town, as copper was discovered in 1899 and rediscovered in 1902.[252]

CNMC has managed Chambishi since purchasing it in 1998. CNMC was established in 1983. It is a large central enterprise under China's State-owned Assets Supervision and Administration Commission (SASAC). CNMC thus has a direct connection to the Chinese government. The company prioritizes the development of the Belt and Road initiative and African business strategy, and currently conducts business in over 80 countries, with a focus on more than 40 non-ferrous metal products. The company has undertaken numerous mining, dressing, and metallurgy projects in over 30 countries along the Belt and Road, with a contract amount surpassing 120 billion yuan (US $17.42 billion dollars), leading to its ranking as the

[250] World Bank Data, Mineral Rents.
[251] "Populations and Cities in Zambia 2023," *World Population Review*, accessed February 28, 2023, https://worldpopulationreview.com/countries/cities/zambia.
[252] Kenny Chileshe Chisulo, "History of Chambishi," *Scribd*, accessed February 28, 2023, https://www.scribd.com/document/385102951/History-of-Chambishi-By-Kenny-Chileshe-Chisulo#.

86th among the "World's Top 250 International Engineering Contractors" in 2019.[253] Other than its domestic operations, the company has formed a development belt of nonferrous metal mineral resources in neighboring countries, central and southern Africa, and some developed countries. The company holds control of around 10 million tons of heavy nonferrous metal and over 300 million tons of bauxite overseas.[254]

The company's website contains limited information on its CSR practices. The website does not have an available English version. The CSR section only contains information on the social services the company provided to the local communities in the past. There are only a picture and a short title for each social service. Most of the social services are the company's donations to local communities. Sustainability Reports are available in Chinese from 2018 to 2021. The sustainability reports are very comprehensive, including community engagement, environmental protection and employee well-being strategies. I googled CNMC CSR and found one annual report (2020) in English.[255] There are over 30 pages out of the around 200-page document talk about environment, social responsibility and governance.

CNMC's high legacy score perhaps is most visible through an examination of its actions in Zambia, including in the Chambishi case, and how the company's poor labor practices have led directly to massive protest. Activism against CNMC's treatment of workers is best couched within the broader context of concerns in Zambia about Chinese investment, especially in mining. Some Zambians oppose increasing Chinese presence in Zambia, with many concerned

[253] "China Nonferrous Mining Corporation Limited," *CNMCL*, accessed February 28, 2023, https://www.cnmcl.net/.
[254] "China Nonferrous Metal Mining Group- 中国有色矿业集团有限公司," *Baidu Baike - 百度百科*, accessed February 28, 2023. https://baike.baidu.com/item/%E4%B8%AD%E5%9B%BD%E6%9C%89%E8%89%B2%E7%9F%BF%E4%B8%9A%E9%9B%86%E5%9B%A2%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B8/9262991.
[255] "China Nonferrous Mining Corporation Limited 2020 Annual Report," accessed February 28, 2023, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://www.cnmcl.net/Managed/Resources/docs/report-m/e2020ar.pdf.

about “recolonization” in Africa, and others complaining about how Chinese-run industries, especially copper mining companies, treat their workers.

Within this context, CNMC earned a dismal reputation among local populations surrounding not only Chambishi, but also several other operations. The company has opened four mining operations in Zambia since 2003: Non - Ferrous China Africa (NFCA), Sino Metals Leach Zambia (Sino Metals), Chambishi Copper Smelter (CCS), and China Luanshya Mine (CLM).[256] There have been anti-Chinese protests among Zambian copper workers regarding poor working conditions and low salaries. In March 2008, 500 Zambian employees rioted over low wages and unsafe working conditions. They attacked a Chinese manager at the smelter and threw stones at the mining properties. Police were called in for this situation. After the riot, these employees were suspended and around 50 of them were fired. “Dubious” Chinese labor practices were widespread in Africa when a Chinese-run copper mine exploded in 2005 and killed about 46 Zambian workers.[257] In 2006, riots happened in Chambishi regarding work conditions caused the death of 5 miners. Human Rights Watch also found that there was worker abuse at the mine site. Employees often work overtime under poor safety conditions, in violation of Zambia’s national laws and international labor standards. In 2011, miners from the project site-initiated strikes. The mobilizations, which concerned health problems and working conditions, spread to other sites that are operated by Chinese companies. The protests led NFCA to fire at least 1000 strikers, though the company reinstated them later under government pressure.[258]

5.4.1 Conclusion

[256] “You’ll be fired if you refuse,” 2011.
[257] Ofeibea Quist-Arcton, “Chinese-Built Zambian Smelter Stirs Controversy,” *npr*, July 31, 2008, https://www.npr.org/templates/story/story.php?storyId=93081721.
[258] “Zambia: Workers Detail Abuse in Chinese-Owned Mines,” *Human Rights Watch*, November 3, 2011, https://www.hrw.org/news/2011/11/03/zambia-workers-detail-abuse-chinese-owned-mines.

Past researchers suggest that Chinese SOEs behave worse than Chinese private firms, because Chinese SOEs tend to operate in political risky countries and have less discretional power.[259] Among the 5 projects in this chapter, the country where Project 5 is located, Zambia, has the lowest GDP per capita and the highest mineral rent scores. Thus, country-level characteristics might affect whether there is a conflict or not.

The case study also shows high legacy scores leads to social conflict, regardless of whether a Chinese company is state-owned or privately-owned. CSR score does not matter that much. CNMC has a relatively comprehensive CSR publication, and yet the company's CSR performance on the ground was sufficiently poor to cause the firm's overall CSR score to be low. Thus, the case study concludes that CSR implementation on the ground matters more than CSR publication.

Another factor that contributed to conflict in the Chambishi case was the widespread dissatisfaction in Zambia regarding Chinese mining operations and Chinese industries in general. This circumstance does not exist at the two privately run Chinese project sites analyzed in this chapter (in Ghana and the Dominican Republic). While the purpose of the present analysis is not to explain anti-Chinese sentiment in Zambia, the country could stand out in this regard due to the fact that Zambia is home to more Chinese operations than the other two countries. (In the dataset with 1001 projects, both Ghana and the Dominican Republic have one Chinese-operated mine while Zambia has 6). The Chambishi case discussion suggests that all CNMC's operations in Zambia followed the same operational procedures and guidelines. For instance, the Chinese-run operations prevented workers from joining the labor unions and exercising their rights. The overall poor treatment of workers by Chinese mining companies served to amplify how CNMC's practices were viewed by workers and communities in the

[259] Adarkwah and Malonæs, 1-47.

Chambishi conflict. That is, even had CNMC behaved better in this case, the locals might still have resented and organized against the company, due to the preexisting poor reputation of Chinese firms. In contrast, no other Chinese-owned operations are close or adjacent to Project 1 or Project 3 (the privately owned Chinese projects studied in this chapter).

Also, China has a long history of operation in Zambia – started from 1998.[260] The long history might lead to a cumulation of legacy grievances among the residents. Future studies could investigate Chinese operations in the three countries to explore the extent to which ongoing Chinese investment may impact social mobilizing in the mining sector.

Table 5.5 Cases for Chinese SOEs vs Chinese Private Firms

Chinese Projects	Company	Ownership	Conflict	CSR Score	Legacy
Project 1	Bosai Minerals	Private	Yes	2	3
Project 5	CNMC	State	Yes	3	3

Chapter 5 integrates 5 case studies to illustrate the quantitative results: a history of bad behaviors results in social conflict, controlling for state wealth, reliance on extraction, freedom level and water risk level. The comparison between Project 1 and Project 2 illustrates how one Chinese-owned company and one non-Chinese owned company with high legacy score contributed to social conflict; the comparison between Project 3 and Project 4 shows how one Chinese-owned company and one non-Chinese owned company with no legacy record did not confront conflict; the comparison between Project 5, a Chinese state-owned company operated mining site, and Project 1, a Chinese privately-owned company operated mining site illustrates that no matter a Chinese company is state-owned or privately-owned, it has a higher probability

[260] "You'll be fired if you refuse." Labor abuses in Zamina's Chinese State-owned copper mines. November 4, 2011. Human Rights Watch. https://www.hrw.org/report/2011/11/04/youll-be-fired-if-you-refuse/labor-abuses-zambias-chinese-state-owned-copper#.

to confront conflict when its legacy score is high. The comparative case studies in Chapter 5 show that legacy behaviors have a significant impact. Mining MNCs, no matter Chinese owned or not, can behave badly regardless of their CSR.

Chapter 6 Conclusion

In this dissertation, I focus on explaining the reasons for social conflict around mining operations. I test the general assumption that Chinese mining MNCs behave worse than other foreign-owned companies. The dissertation asks: How, if at all, do Chinese firms affect socio-environmental conflict around extraction? To what extent do CSR practices of firms, both Chinese and non-Chinese, explain variation in conflict?

Chapter 1 outlines the research background and the research question. There has been increasing social conflict in the mining industry. Other than domestic corporations, mining MNCs contribute to a large number of conflicts. Moreover, Chinese MNCs receive criticisms that they create more community tensions. In this context, this dissertation tests whether there is a "Chinese way" of operating abroad in the mining sector that leads to more conflict. Chapter 2 digs into past research and discusses the existing arguments around the causes of mining conflict. The variable based literature explains causes for conflict at both country-level and community-level. The country-level explanations include the "resource curse" literature; the participatory mechanisms literature and the literature that discusses firms' country of origin and its impacts. The community-level explanations include the grievances literature and the CSR literature. The China-centered literature explains whether there is a "Chinese way" of doing business. This body of literature further considers two issues: whether Chinese firms behave differently than firms from other countries and whether the Chinese government influences the behavior of Chinse companies. Based on the literature review, I developed my hypotheses as follows: Chinese mining MNE operations confront more conflict than projects financed by firms from other countries; and a firm's CSR performance is associated with variation in conflict. Six factors reflect the quality of a firm's CSR performance: CSR publication, community engagement practice, strategies for environmental protection, labor practice, whether there is content on firms' website that describes CSR in the local language

where the company operates, and legacy conflict. Chapter 3 explains the research methods and procedures for measurement. In that chapter, I provide a detailed description of my data sources, approach to measuring each variable, and my coding strategies. Chapter 4 summarizes the statistical test results and spatial analysis results. This dissertation finds that CSR has little impact on social conflict; mining firms with higher legacy scores have higher probability to confront more conflict; Chinese MNEs do not confront more conflict than non-Chinese MNEs. Chapter 5 integrates a close-up study of 5 cases to illustrate the central findings of the statistical and spatial analysis.

This dissertation has three main contributions. Theoretically, the arguments in this dissertation contribute to debates about whether Chinese-owned companies confront more social conflict around mining operations. The results that Chinese mining MNCs do not perform worse threaten to falsify much of what has been discussed about Chinese mining firms, that they behave worse and cause conflict. Given the prominence of Chinese firms in mining globally, the study's focus on Chinese MNC mining projects contributes to our understanding of extractive conflict. Moreover, the discussion of various independent variables (those that reflect the quality of CSR performance), and control variables, provides a systematic overview of the factors that explain extractive conflict. The findings that legacy matters to conflict and CSR does not contribute to the literature that explains the causes for mining conflict. Because only a limited amount of research argued that legacy conflict matters, and this dissertation provides quantitative and qualitative evidence for this argument. Methodologically, the dissertation contributes to the measurement strategies for the quality of CSR performance. There has not been a large-n quantitative test on Chinese mining firms' behaviors. This dissertation develops its own CSR rating system and involves multiple data analysis methods. The research design relies on distinct types of data collection: a random sampling of 1001 mining projects worldwide; spatial data of the location of each mining site; spatial data for

water risk level at each mining location; and archival and secondary sources that complement other sources of data, such as news articles and reports from governments and from companies. The combination of quantitative statistical regression analysis, GIS spatial analysis, and comparative case studies provides a distinct and comprehensive way to explain social and environmental conflict in the mining sector.

This dissertation also has policy implications. The broad narrative on mining and resource extraction has been focusing on criticizing the performance by a particular country-owned companies, such as Canadian-owned or Chinese-owned. This narrative often lacks consideration for companies' performance on the ground. The result that mining companies' legacy performance matters reinforces the need to shift the direction of the narrative to companies' behaviors. For the mining industry worldwide, I suggest more CSR enforcement. Because CSR initiatives are voluntary, I recommend that governments and international organizations, both governmental and non-governmental, should target at reducing mining conflict and construct a more comprehensive regulatory mechanism that restricts mining companies' behaviors. The issue of CSR enforcement is urgent as the development of renewable energy means more extraction for critical minerals. The result that legacy record matters indicates that mining companies should pay more attention to their CSR performance on the ground and focus on CSR implementation strategies. The sustainable development at each community located by the mining site requires a focus of mining companies' quality of CSR performance. Mining companies need to prioritize restructuring their activities at the community level, so that they would not generate harm to the locals and benefit the community as a whole. For Chinese mining operations, I recommend the Chinese government to develop a systematic regulatory system for Chinese mining MNEs to better govern their behaviors.

This study also has limitations. As mentioned in the Introduction chapter, quantitative studies lack comprehensive measures of certain variables. Future research should conduct in-

depth examination of the causal mechanisms linking the independent variables that achieve statistical significance in this study, with conflict. This dissertation provides one way to measure the quality of companies' CSR performance that could be applied to other studies of CSR. Future work could develop alternative data models to measure CSR performance. For instance, researchers could look at other ways to score firms' community engagement behaviors and come up with a stronger way of measurement. More in-depth studies are also required to investigate the difference between public and private firms in generating mining conflict. Moreover, each company's full CSR performance could only be accessed through in-depth research, such as interviews or surveys in each community. The current project dataset contains data up until 2019 and has a limit number of Chinese projects. A more comprehensive dataset could be constructed that is up to date and has more projects.

Overall, this dissertation hopes to provide a broad overview of Chinese companies' performances around the globe, and the relationship between CSR performance and social conflict.

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Appendix

Appendix A Research Method and Examples

Search strategy for existing social conflict described below:

Example: Baluba Center mine project

To check if there is a conflict associated with the project, I first went on the EJAtlas website. The project locates in Zambia, I thus limited the search to country Zambia. The website lists social conflicts around the world related to environmental issues. The website also collects stories of communities who experience environmental issues worldwide.[261] According to the EJAtlas website, socio-environmental conflicts can be defined as: "mobilizations by local communities, social movements, which might also include support of national or international networks against particular economic activities, infrastructure construction or waste disposal/pollution whereby environmental impacts are a key element of their grievances."[262] The EJAtlas maps the conflicts and has been used as a reliable source by other researchers. The maps categorize conflicts. Conflicts relate to mining is one of them. For my research, rather than searching by conflict type, I decide to search by country so that I could have a comprehensive list of all the conflicts happened in this country. In this way, I make sure the conflict I'm looking for does not fall into another category made by the website. In this example, I have 5 conflicts in Zambia and the Baluba project is not one of them. Next, I went on the Social Conflict Analysis Database (SCAD) to search for conflicts happened in Africa.[263] I

[261] Leah Temper, Daniela del Bene and Joan Martinez-Alier. 2015. Mapping the frontiers and front lines of global environmental justice: the EJAtlas. Journal of Political Ecology 22: 255-278. http://jpe.library.arizona.edu/volume_22/Temper.pdf

[262] Environmental Justice Atlas, https://ejatlas.org/about. Accessed January 25, 2022.

[263] SCAD includes "protests, riots, strikes, intercommunal conflict, government violence against civilians, and other forms of social conflict not systematically tracked in other conflict datasets." The dataset covers information from 1990 – 2017 from all of Arica. Salehyan, Idean, Cullen S. Hendrix, Jesse Hamner, Christina Case, Christopher Linebarger, Emily Stull, and Jennifer Williams. "Social conflict in Africa: A new database." International Interactions 38, no. 4 (2012): 503-511. The dataset was found from: Christensen, Darin.

again sort the dataset by country, and I did not find any conflict related to the Baluba Center mine.

I then googled the project name "Baluba Center mine" and looked at the first three pages to see if there is any news or reports related to the project. Because the order of the Google search results is based on the relevance to the search key words. Thus, I limit my search to the first three pages.

I looked at the pages and saw one website article: "Labor abuses in Zambia's Chinese State-owned Copper Mines."[264] I read the article and did not find a conflict related to the Baluba Center mine.

Just to get a comprehensive result, I also looked at the first page of the News tab in Google Search, because the tab again is based on the key words. The first page should contain the information I need.

I then moved on and searched Baluba Center mine conflict, I have similar results from the first round of search. I also tried to type "project name + protest", "project name + mobilization". "project name + strike", and "project name + violence." No result came out that indicates a conflict is associated with the project.

I use the same strategy for all other projects in my data file. To keep track of all my working process, I record the date that I perform the search for the projects (This research was done during June 1st to July 31st, 2022). If a project is associated with a known social conflict, and

"Concession stands: How mining investments incite protest in Africa." International organization 73, no. 1 (2019): 6.

[264] "You'll be fired if you refuse." Labor abuses in Zamina's Chinese State-owned copper mines. November 4, 2011. Human Rights Watch.

if the information is available, I will record the date, location, and reason for the conflict. I treat a project with no conflict information as a missing data.

Appendix B Code Book

Dependent variable

Conflict: con

Dummy variable

Whether Chinese or not: chi

Control variable

State wealth: wea

Reliance on extraction: rel

Freedom level: fre

Water risk level: wat

Independent variable

Ownership1: own1

Ownership2: own2

Ownership3: own3

Size: siz

CSR publication: pub

Community relations: com

Environmental performance: env

Employee wellbeing: emp

Language: lan

Member for UN Global Compact: un

CSR score: csr

Legacy conflict: legacy

Description of datafiles:

- Data1: dataset one contains 22 joint ventures (duplicates). There are a total of 1021 cases.

Joint ventures measurement: I made duplicate observations of these types of projects, each associated with a different company and a different CSR score.

- Robustness check:

Data2: dataset two includes all the projects excluding the joint ventures. There are a total of 981 cases. This data serves as a robustness check as I dropped the joint venture cases with multiple owners and ran the model to see if the results change.

- Data3 contains only Chinese-company-operated projects. The purpose of data3 is to add a new variable that distinguishes SOEs, and Chinese private owned mining companies.

The new model, Model 6, is going to test whether ownership of a Chinese company affects social conflicts.

New variable: Own4: 0-private, 1- state owned

Appendix C Logistic Regression Code Book and Data Models

File name: Data1

1. The first model checks whether ownership matters to social conflicts. The variables included in this model are own1 and own2.
2. The second model tests whether CSR matters to social conflicts. The variable included in this model is csr.
3. The third model tests whether CSR matters to social conflicts with each CSR component listed separately.
4. The fourth model adds the Chinese dummy variable.
5. The fifth model adds the China dummy variable and tests each CSR variables individually.

Correlation Analysis:

- Ownership1 and ownership2 Correlation with CSR variables.
- Correlations between CSR variables and China dummy variable.

The method I used is Pearson Correlation Analysis.

Interaction Analysis:

- Interaction variables between each CSR factor variable and the China dummy variables.

inter1: chi and csr

inter2: chi+ pub

inter3: chi+ com

inter4: chi+ env

inter5: chi +emp

inter16: chi+lan

- Interaction between variables publication and language.

New variable: inter 7

Measurement for Grievances

Coding:

Extremely high risk (4-5) 5

High risk (3-4) 4

Medium to high risk (2-3) 3

Low to medium risk (1-2) 2

Low risk (0-1) 1

No data 0