Transnational Environmental Regulations in the Canadian Mining Industry

Addressing the Governance Gap

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Abstract

While the Canadian mining sector plays an important role in Canadian prosperity both domestically and internationally, mining operations can cause significant environmental damage if not properly managed. Ensuring that mining companies are taking appropriate steps to limit their impact on the environment is no small task, and as a result Canadian mining companies face a wide variety of different environmental regulations in Canada. However, although the Government of Canada has established a stringent regulatory framework for mining companies operating in Canada, the majority of those regulations, including many environmental regulations, do not apply to Canadian companies operating abroad. Instead, Canadian companies operating abroad are largely regulated by the laws of the host country in which they are operating. In many cases, however, host-countries may have inadequate national environmental regulations. In the absence of adequate host-nation regulations, and with Canadian national laws inapplicable abroad, a governance gap emerges in which Canadian mining companies are often able to operate without the threat of being held accountable for environmental abuses. While the Canadian mining industry, as well as the Government of Canada, has argued that the best way to address this governance gap is through voluntary Corporate Social Responsibility initiatives, proponents of regulatory reform argue that such initiatives have not been effective in preventing Canadian mining companies from committing environmental abuses abroad, and that binding regulations enforced by the Government of Canada are needed. Drawing upon case studies from two major Canadian mining projects abroad, The Oyu Tolgoi mine in Mongolia and the Marlin Mine in Guatemala, as well as academic literature on transnational and environmental regulation, this paper finds that not only are Corporate Social Responsibility initiatives proving to be ineffective at closing the current governance gap in the Canadian mining industry from an empirical perspective, but also that such initiatives in their present form are flawed from a theoretical perspective. As a result of the current transnational environmental regulatory regime, environmental abuses committed by Canadian companies operating abroad are causing damages to natural environments and local populations in many host-countries all over the world. In addition to damages in host-countries, the current governance gap in the Canadian mining industry is calling into question the commitment of the Government of Canada and of the Canadian mining industry's to sustainable development. This paper further argues that the best way to close the governance gap is through applying binding regulations on Canadian mining companies operating abroad, enforceable by the Government of Canada. Applying such regulations on Canadian mining companies operating abroad would cement Canada's position not only as an economic leader, but as an environmental leader in the global mining industry. Applying such regulations may also lead to a norm cascade in which other industries and other national governments begin to take more meaningful actions in promoting sustainable development in their companies' operations abroad.

Résumé

Bien que secteur minier joue un rôle important concernant la prospérité du Canada, aussi bien sur le plan national qu'international, les opérations minières peuvent causer des dommages environnementaux importants s'ils ne sont pas gérés correctement. Il n'est pas facile de s'assurer que les compagnies minières prennent les mesures nécessaires pour limiter leur impact. Par conséquent les compagnies minières canadiennes font face à une grande diversité de réglementations environnementales au Canada. Cependant, même si le gouvernement canadien a établi un cadre réglementaire rigoureux pour les compagnies minières en activité au Canada, la majorité de ces règlements, y compris de nombreux règlements environnementaux, ne s'appliquent pas aux compagnies canadiennes en activité à l'étranger. En fait, les compagnies canadiennes en activité à l'étranger relèvent le plus souvent des lois du pays dans lequel elles exercent leurs activités. Dans la plupart des cas, cependant, les pays d'accueil peuvent avoir une législation moins contraignante dans le domaine environnemental. En l'absence de législation adéquate dans le pays d'accueil, et puisque les lois nationales canadiennes ne s'appliquent pas à l'étranger, on assiste à l'émergence d'un déficit de gouvernance qui permet souvent aux compagnies canadiennes de mener des opérations sans avoir à s'inquiéter de rendre des comptes concernant les abus environnementaux. L'industrie minière canadienne et le gouvernement du Canada soutiennent que la meilleure façon d'adresser ce déficit de gouvernance, c'est de mettre en place des initiatives d'engagement social des entreprises. Mais les promoteurs de la réforme de la réglementation soutiennent que ces initiatives n'ont pas permis d'empêcher les compagnies minières canadiennes de commettre des abus environnementaux à l'étranger et qu'il faut que le Canada prenne des mesures pour faire respecter des règlements juridiquement contraignants. Suite à une étude de cas de deux grands projets miniers à l'étranger, la mine Oyu Tolgoi en Mongolie et la mine Marlin au Guatemala, et une analyse des recherches scientifiques sur les règlements nationaux et transnationaux, ce rapport conclue que les initiatives d'engagement social des entreprises sont non seulement inefficaces pour réduire le déficit de gouvernance dans l'industrie minière, dans une perspective empirique, mais que ces initiatives, sous leur forme actuelle, présentent des lacunes sur le plan théorique. Etant donné la réglementation et les normes environnementales actuelles, les compagnies canadiennes peuvent commettre des abus environnementaux à l'étranger et causer des dommages à des environnements naturels et aux populations locales dans de nombreux pays d'accueil, dans différentes parties du monde. En plus des dommages causés dans les pays d'accueil, le déficit actuel de gouvernance dans l'industrie minière canadienne remet en cause l'engagement du gouvernement du Canada et de l'industrie minière canadienne envers le développement durable. Ce rapport soutient que la meilleure façon d'adresser ce déficit de gouvernance est d'imposer des règlements juridiquement contraignants pour les compagnies qui opèrent à l'étranger, règlements que le gouvernement du Canada doit faire respecter. Imposer de tels règlements aux compagnies minières canadiennes qui ont des activités à l'étranger permettrait de cimenter la positon du Canada en tant que leader économique mais aussi en tant que leader environnemental dans l'industrie minière mondiale. Imposer de tels règlements pourrait aussi avoir un effet domino, entrainant d'autres industries et gouvernements à prendre des mesures plus pertinentes pour promouvoir le développement durable dans les opérations de leurs firmes à l'étranger.

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List of Acronyms

CEAA – Canadian Environmental Assessment Act
CEPA – Canadian Environmental Protection Act
CSR – Corporate Social Responsibility
EDC – Export Development Canada
EP – Equator Principles
ESIA – Environmental and Social Impact Assessment
GDP – Gross Domestic Product
HRA – Human Rights Assessment
ICMM - International Council on Mining and Metals
IFC – International Finance Corporation
IGO – Inter-Governmental Organization
LRTAP – Long-Range Trans-boundary Air Pollution
MAC – Mining Association of Canada
MNE – Ministry of Nature and Environment
OECD – Organization for Economic Co-operation and Development
OT – Oyu Tolgoi
PDAC – Prospectors and Developers Association of Canada
NGO – Non-Governmental Organization
SCC – Supreme Court of Canada
SCFAIT – Standing Committee on Foreign Affairs and International Trade
SDF – Sustainable Development Framework
SEVGE – Social and Environmental Value Governance Ecosystem
TSM – Towards Sustainable Mining
USD – United States Dollars
UNESCO – United Nations Educational, Scientific, and Cultural Organization
USCGLWQT – United States-Canada Great Lakes Water Quality Agreement

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Chapter 1 – Introduction

The Canadian mining sector makes an important contribution to national prosperity. In 2011, the industry contributed $35.6 billion to Canadian GDP, which represented nearly 3% of the Canadian Economy.[1] Canada is also a major player in the international mining sector. Mining and exploration companies based in Canada account for 43% of global exploration expenditures, and in 2008 over 75% of the world's exploration and mining companies were headquartered in Canada.[2] As of 2008, over 1200 Canadian-based mining companies had an interest in some 7809 properties in Canada and in over 100 countries around the world.[3] These companies are increasingly searching for new resources in developing countries, and as of 2010 Canadian mining companies had invested over $60 billion in the developing world, including about $41 billion in Latin America (including Mexico) and almost $15 billion in Africa.[4]

While the mining sector plays an important role in Canadian prosperity both domestically and internationally, the impacts of mineral extraction are not all positive. One of the biggest concerns with mining is the industry's impact on the environment.[5] Given the nature of mining, the extraction of valuable minerals or other geological materials from the natural environment, it is no secret that mining projects can have serious environmental consequences.[6] Potential impacts on the environment from mining may include the destruction of ecosystems, the loss of wildlife and biodiversity, the

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[1] (GDP - Canadian Economy, 2011)
[2] (Mining Association of Canada, 2012)
[3] (Foreign Affairs and International Trade Canada, 2012)
[4] (Foreign Affairs and International Trade Canada, 2012)
[5] (Environmental Concerns Through the Mine Life Cycle, 2012)
[6] (Environmental Concerns Through the Mine Life Cycle, 2012)

contamination of groundwater and surface water, deforestation, erosion, airborne emissions and many others.[7] Ensuring that mining companies are taking appropriate steps to limit their impact on the environment is no small task, and as a result Canadian mining companies face a wide variety of different environmental regulations in Canada.[8]

As Canadian mining companies continue to expand their global operations, concerns have been raised over how these companies are being regulated abroad.[9] While it is true that many Canadian firms operate responsibly abroad, there is ample evidence suggesting that a significant number of companies are committing environmental abuses abroad each year, usually in countries where environmental regulatory capacity is weak.[10] According to a recent study by the Canadian Center for Resource Conflict Studies, Canadian mining firms were found to be "far and away the worst offenders" in mining-related environmental abuses around the world and were found to have played a much more major role than their peers in environmental incidents in the developing world over the last 10 years.[11] In addition to the environmental damage done in host-countries, these environmental abuses are beginning to damage the reputation of the Canadian Mining Industry, as well as Canada's reputation as a whole.[12]

Many of the cases in which Canadian mining companies commit environmental violations abroad are representative of a larger issue facing the Canadian Government and the Canadian Mining Industry. There currently exists a significant disconnect between the global reach of Canadian mining companies and the limited reach of

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[7] (Environmental Concerns Through the Mine Life Cycle, 2012)
[8] (Environmental Concerns Through the Mine Life Cycle, 2012)
[9] (Drohan, 2010)
[10](Drohan, 2010)
[11] (Canadian Center for Resoure Conflict Studies, 2011)
[12] (Drohan, 2010)

Canadian law.[13] While the Government of Canada has established a stringent regulatory framework for mining companies operating in Canada, the majority of those regulations, including many environmental regulations, do not apply to Canadian companies operating abroad.[14] Instead, Canadian companies operating abroad are largely regulated by the laws of the host-country in which they are operating. In many cases, however, host-countries may have inadequate national environmental regulations. In the absence of adequate host-nation regulations, and with Canadian national laws inapplicable abroad, Canadian mining companies are often able to operate without the threat of being held accountable for environmental abuses. While voluntary Corporate Social Responsibility (CSR) initiatives, generally defined as the voluntary activities undertaken by a company to operate in an economically, socially and environmentally sustainable manner[15], also play a role in regulating Canadian mining companies operating abroad, such initiatives place no binding requirements on companies and, as this paper argues, have been ineffective at preventing environmental abuses in the absence of binding regulations.

Global governance theorists refer to this regulatory dilemma as a "governance gap".[16] Governance gaps occur as a result of the absence of a global international government. Without such government, transnational issues and disputes – such as Canadian mining companies committing environmental abuses abroad – can only be regulated by a mixture of governments, institutions (such as Non-Governmental Organizations and Inter-Governmental Organizations), and other actors (such as Non-

[13] (Drohan, 2010)
[14] (Drohan, 2010)
[15] (Foreign Affairs and International Trade Canada, 2012)
[16] (International Union for the Conservation of Nature, 2008)

Profit Organizations, Industry groups, etc.).[17] When issues arise in which there is no government, institution, or other actors that can effectively and autonomously solve the issue, there is said to be a governance gap.[18] In the case of the Canadian mining industry, a governance gap can occur when Canadian mining companies are operating in host-nations that do not have adequate national environmental regulations. With the majority of Canadian national regulation inapplicable abroad, and with Corporate Social Responsibility initiatives being non-binding and often ineffective, companies operating in such countries are able to operate without faces penalties for committing environmental abuses.

Both the Government of Canada and the Canadian mining industry acknowledge the current governance gap in regulating mining companies abroad.[19] How this governance gap should be dealt with, however, is a matter of ongoing debate. Proponents of reforming mining regulations argue that voluntary self-regulation by mining firms has not been enough to hold mining firms accountable for environmental and social abuses abroad, and that binding regulations enforced by the Government of Canada are needed.[20] Mining companies, on the other hand, have remained firmly opposed to binding regulations on Canadian companies operating abroad on the grounds that such regulation would harm their competitive position in the global market.[21] The Canadian government

[17] (International Union for the Conservation of Nature, 2008)
[18] (International Union for the Conservation of Nature, 2008)
[19] (Drohan, 2010)
[20] (Dashwood, 2011)
[21] (Prospectors and Developers Association of Canada, 2010)

is equally concerned that extending its legal reach abroad may violate the sovereignty of host governments.[22]

Although being acknowledged for over a decade, the debate over the governance gap in the Canadian mining industry reached a climax in 2009 with the proposal of Bill C-300, a Private Member's Bill submitted by Liberal Member of Parliament (MP) John McKay. Bill C-300, named the *Corporate Accountability of Mining, Oil and Gas Corporations in Developing Countries Act*, was meant to "ensure that corporations engaged in mining, oil or gas activities and receiving support from the Government of Canada act in a manner consistent with international environmental best practices and with Canada's commitments to international human rights standards".[23] The bill provided for the creation of a set of environmental standards that would be enforced by the Ministers of Foreign Affairs and International Trade through a complaints-based and investigative process with annual reports to Parliament.[24] Companies that were found to have broken the rules would lose their Export Development Canada and Canada Pension Plan Investment Board funding.[25] In November of 2010, however, Bill C-300 was defeated in the House of Commons, as it failed to pass in a close vote of 140 to 134.[26] The failure of Bill C-300 brought to light the many complexities involved in settling the governance gap debate, since even after much consultation and dialogue between regulatory reformers and industry representatives, the idea of applying binding regulations on Canadian mining companies operating abroad was still rejected.

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[22] (Drohan, 2010)
[23] (BILL C-300, 2009)
[24] (Prospectors and Developers Association of Canada, 2010)
[25] (Prospectors and Developers Association of Canada, 2010)
[26] (Dagenais, 2010)

As it stands, the governance gap in the Canadian Mining Industry still remains. In the absence of effective national regulations, and with few mechanisms for the Canadian government to regulate the large number of Canadian Mining Companies operating abroad, many countries remain vulnerable to environmental abuse from Canadian mining companies. On a larger scale, the resistance to applying binding regulations on Canadian mining companies operating abroad has raised serious concerns over the Government of Canada and the Canadian mining industry's commitment to sustainable development. While most major mining companies now frame their Corporate Social Responsibly policies in terms of sustainable development, and the Government of Canada has pledged to help integrate sustainable development into the Canadian mining industry, the resistance to applying binding regulations on mining companies operating abroad suggests that these actors are not committed to taking action to follow through on their sustainable development goals. Theorist Hevina Dashwood explains that this is consistent with literature on the 'life-cycle' of global norms.[27] According to the life-cycle theory of norms and development, there is an important distinction between the acceptance of norms as discourse and the action required to follow through on them. Without taking the necessary actions to incorporate sustainable development principles into practice, life-cycle theory holds that the Government of Canada and the Canadian mining industry will not be able to move beyond "prescriptive status", meaning they only pay lip-service to the norm of sustainable development.[28] In order to truly be a leader in the global mining industry, the Canadian mining industry and the Government of Canada must move past prescriptive status, and take the necessary actions to truly integrate sustainable

[27] (Dashwood, 2011)
[28] (Dashwood, 2011)

development practices into the Canadian mining industry. This paper argues that applying binding regulations on mining companies operating abroad through creating environmental standards enforceable by the Government of Canada is a good place to start. Furthermore, this paper suggests that if the Canadian mining industry and the Government of Canada agree to applying binding regulations on Canadian mining companies operating abroad, they will have the opportunity to become policy trailblazers, and may set in place a "norm cascade" in which other national governments and other industries will begin to adopt stricter environmental policies for their operations abroad.

Research Goals

The goal of this research paper is to examine whether the current environmental regulatory regime in the Canadian mining industry has been effective in preventing environmental abuses abroad, and to examine the role that binding regulations could play in closing the current governance gap. In order to achieve this research goal, this paper provides an overview of the current regulatory regime governing Canadian mining companies operating abroad and how a governance gap can form under such a regime, a discussion of the implications a governance gap may have for countries with weak or non-existent environmental regulations, an evaluation of the arguments made against applying binding regulations on Canadian mining companies operating abroad, and an examination of different regulatory responses to the governance gap. The findings of this research paper are that the current environmental regulatory regime in the Canadian mining industry has not been effective in preventing environmental abuses abroad, and that binding regulations enforced by the Canadian government are necessary in order to adequately regulate Canadian mining companies abroad and close the current governance

gap in the Canadian mining industry. Furthermore, this research paper argues that the arguments made against applying binding regulation on Canadian mining companies operating abroad are unfounded and go against empirical evidence.

The paper begins by examining the various national and international environmental regulations in the Canadian mining industry, as well as other non-governmental and industry environmental regulations that affect Canadian mining companies. These regulations will be examined using a mining-cycle framework, as outlined by Natural Resources Canada, that illustrates which regulations come into effect at each phase of the mining process, and how these regulations are applied to companies operating abroad. The main research question that seeks to be answered is how are Canadian mining companies regulated abroad with regard to environmental practices, and what is the governance gap with regard to environmental regulations in the Canadian mining industry?

Next, two case studies will be used to illustrate the implications this governance gap can have on countries with weak national regulations. The first of these cases will be on environmental regulations in Mongolia, a relatively new mining hotspot.[29] This case will largely focus on the Oyu Tolgoi mine, which is currently attracting a lot of attention over its potential negative impacts on the environment.[30] [31] [32] The second case will examine environmental regulations in Guatemala, and will largely focus on one of the most controversial mining projects in the country – the Marlin Mine.[33] These cases were

[29] (Tapper, 2012)
[30] (Mongolia Suspends Two Mining Permits, 2013)
[31] (Bowler, 2013)
[32] (Tapper, 2012)
[33] (Zarsky, 2011)

chosen for a variety of reasons. First, both Guatemala and Mongolia have very weak national mining and environmental regulations, with vague written laws and ineffective enforcement mechanisms. The regulatory frameworks in these countries are representative of those that are most vulnerable to the dangers attributed to the governance gap in the Canadian mining industry. Second, both of these cases involve highly controversial, large-scale mining projects operated by Canadian mining firms. Both the Marlin Mine (operated by Goldcorp) and The Oyu Tolgoi mine (Operated by Turquoise Hill in partnership with Rio Tinto Alcan) have come under intense environmental scrutiny from the global community, with many IGOs and NGOs calling for the closure of these projects. In both cases, the environmental controversies are a direct result of inadequate regulation and could have been avoided if it were not for a governance gap. Finally, and most importantly, both of these case studies were chosen because of the amount of evidence that has been put forward linking these projects, and the Canadian companies that operate them, with environmental abuses. In both cases, it is not only possible to show how Canadian mining companies have committed environmental abuses, but also how such environmental abuses have effected local populations and the mining industries of their host-nations.

Following the case study analyses, the arguments against applying binding regulations on Canadian mining companies operating abroad will be discussed and evaluated. Starting with a brief history of the governance gap debate in Canada, this section then examines the position of the Canadian Mining Industry and the current Government on binding regulations. While the Canadian Mining Industry claims that voluntary Corporate Social Responsibility initiatives are proving effective at preventing

environmental abuses abroad, and that binding regulations will only act to damage Canadian Mining companies' position in the global market place, an evaluation of these claims shows that they are contradictory to empirical evidence. Similarly, the Government of Canada's concerns over binding regulations violating the sovereignty of host-nations is also found to be outdated, and contradictory to many theoretical frameworks of global governance.

The final chapter of this paper will discuss the future of environmental regulations for Canadian mining companies abroad. This chapter looks at two different scenarios – a scenario where binding regulations are applied on Canadian mining companies operating abroad, and a scenario where Corporate Social Responsibility initiatives are relied on for adequate environmental regulation abroad. For the first scenario, different manifestations of binding regulations are examined, including regulations based on the nationality principle and the territorial principle, as well as regulations based on environmental standards enforced by the Government of Canada. For the second scenario, suggestions are provided for how Corporate Social Responsibility initiatives can be improved, specifically by focusing on capacity building in host-nations and by adopting a systemic approach to CSR.

Methods

This paper draws upon information found in legal frameworks, technical reports, academic literature, and media reports. Beginning with an examination of the current international regulatory regime under which Canadian firms operate, Chapter 2 draws information from a number of different legal and regulatory frameworks. Information from the Government of Canada, specifically Environment Canada and the Department

of Foreign Affairs, provides an overview of the various federal laws that regulate mining companies operating in Canada. Next, an overview of the International Laws that apply to the Canadian Mining Industry is provided. Based on information from a number of International Government Organizations, including the United Nations and the World Bank, different International Acts and Agreements are examined under three different categories – access control laws, process control laws, and product control laws. Following International Laws, conditions attached to mining finance are examined. This section draws information from the two largest sustainable financing frameworks – The International Finance Corporations (IFC) Sustainable Framework and the Equator Principles, and shows how these frameworks can be used to indirectly regulate mining projects. Finally, Chapter 2 concludes by examining Corporate Social Responsibility initiatives in Canada. The Frameworks that are examined come from the 3 major Mining Industry Groups in Canada - The International Council on Mining and Metals (ICMM), The Mining Association of Canada (MAC), and The Prospectors and Developers Association of Canada (PDAC). Throughout the chapter, each set of regulations is examined through a mining lifecycle framework, indicating where during the mining process certain regulations apply. Each section also indicates which regulations apply to mining companies operating abroad, and whether regulations are binding or non-binding.

In Chapter 3, two case studies are conducted in order to demonstrate the effects the governance gap can have on countries with weak environmental regulations. These case studies draw on a variety of different information sources. Primary sources for the Case Study on the Mongolia and the Oyu Tolgoi mining controversy come from technical reports released by the Oyu Tolgoi Company. The most important of these reports is the

Oyu Tolgoi Environmental And Social Impact Assessment (ESIA), which outlines what environmental provisions are being considered for the project. River diversion plans and water management studies also provide important information. Other important sources of information for this case study come from reports from International Governmental Organizations, such as the World Bank, and from Mongolian NGOs, in particular Oyu Tolgoi Watch. These reports include critiques on Oyu Tolgoi's ESIA and a variety of third party ecological and water management studies. The Case Study on Guatemala and the Marlin Mine controversy draws upon similar types of sources. Technical reports such as Environmental Impact Studies and waste management studies act as primary sources. This case study also draws much of its information from studies from university groups, such as the Tufts University Institute for Global Development and Environment, from NGOs such as the International Association of Development Physicians, and from third party environmental consulting firms.

Chapter 4 draws upon a number of different types of sources including industry reports, academic literature, and policy briefs. The chapter begins by providing a brief history of the governance gap debate, and then proceeds by evaluating the arguments made against applying binding regulations on mining companies abroad. The positions of the Canadian mining industry and the Government of Canada are discussed, with primary sources coming from reports and press releases from the Prospectors and Developers Association of Canada (PDAC), an industry group representing the Canadian mining industry, and from the Government of Canada. In evaluating the position of PDAC, academic literature concerning CSR initiatives, environmental regulations and international competition is used. This literature covers topics such as the

conceptualization of CSR initiatives, the Porter Hypothesis, and Environmental Marketing. Key theorists include Julia Sagebien, Nicole Lindsay, Michael Porter, and David Vogel. In evaluating the position of the Government of Canada, literature on the sovereignty of nations and the state's duty to protect environmental abuses is examined. Key topics that are addressed are whether or not binding regulations on Canadian mining companies operating abroad are a violation of host-government sovereignty, and whether or not the Government of Canada has an obligation to regulate Canadian mining companies operating abroad. Key theorists in this discussion include Susan Marks, Sarah Seck, and John Ruggie.

In Chapter 5, the future of environmental regulations on mining companies abroad is examined. This section discusses different possible manifestations of binding regulations and strategies to improve Corporate Social Responsibility initiatives, and draws further from academic literature by Sara Seck, Julia Sagebien, and Nicole Lindsay. Press releases from the Government of Canada also provide information regarding Canada's national Corporate Social Responsibility strategy.

Chapter 2: Transnational Environmental Regulatory Regime

Overview

The present era of business has largely been characterized by globalization. Globalizing forces such as advances in transportation and telecommunication infrastructure have expanded social spaces and created opportunities for the intensification and spread of economic interaction.[34] Greater international integration has made it easier for information, ideas, and products to be exchanged across the globe.[35] The rise of Multinational Corporations has meant that while a company may be headquartered in one country, it may still have subsidiaries all over the world.[36] Globalization has been credited with the rapid growth in international business since the beginning of the 20th century, with international diversification shown to have a positive effect on firm performance.[37]

While globalization does indeed provide firms with many economic opportunities, it also presents new challenges for how to regulate firms.[38] Conventional models of national and international law largely revolve around national boarders and state independence.[39] In these models, law is propounded exclusively by nation states, with each state exercising sovereign and hierarchically dominant authority over a distinct territory.[40] In a globalizing world, however, firms are no longer constrained by national

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[34] (Szablowski, 2007)
[35] (Al-Rodhan,2006)
[36] (Al-Rodhan, 2006)
[37] (Hit et al., 2007)
[38] (Szablowski, 2007)
[39] (Szablowski, 2007)
[40] (Szablowski, 2007)

borders. As firms increasingly operate across national borders, there is an increased need for regulations to also transcend these borders.[41] Transnational Law provides for regulations that do just that. Transnational Law is used to refer to legal regimes which operate across national borders or which regulate actions or events that transcend national borders.[42] Transnational legal regimes differ from standard models of law in several key ways, the most important of which being who is responsible for regulation.[43] According to transnational law, states are no longer the sole mainspring of regulation. While state-to-state interactions still play an important role in a transnational world, other actors such as individuals, groups, movements, and business enterprises also play an important role.[44] Rather than ordering national societies authoritatively, state institutions exert their regulatory influences alongside those of a great diversity of other actors. Examples of such actors may include non-profit associations, international organizations, standard setters and corporate actors.[45] Under transnational regulatory regimes, states are enmeshed in webs of complex interdependence, complex multilateralism, and multilayered governance that shape their behavior.[46] The term patchwork has also been used to describe the interdependence and entanglement that characterizes the relationships between different actors in transnational legal regimes.[47]

Given the large variety of actors that may be involved in Transnational Regulatory Regimes, one of the biggest challenges with such regimes is ensuring

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41 (Szablowski, 2007)
42 (Szablowski, 2007)
43 (Djelic, 2006)
44 (Djelic, 2006)
45 (Djelic, 2006)
46 (Szablowski, 2007)
47 (Djelic, 2006)

coordination between different regulations such that a regulatory regime is comprehensive enough to address the issues that it is meant to regulate. While Transnational Regulatory Regimes may consist of numerous regulations from numerous actors, it is sometimes possible that governance gaps emerge in which no regulations can be effectively applied to an issue. Such a situation is currently occurring in the Canadian mining industry. As discussed in the introduction of this paper, the Canadian Mining Industry has a strong global presence, with Canadian mining firms operating in over 100 different countries. As such, the Canadian mining industry is an excellent example of an industry that requires Transnational Laws to regulate the operations of firms abroad. As it presently stands, Canadian mining companies operating abroad are regulated by many different environmental regulations that come from governments, international organizations, and industry groups. While these regulations may prove effective in many situations, the current transnational environmental regulatory regime in the Canadian Mining Industry has been shown to be ineffective in circumstances where national environmental regulations are inadequate.

The purpose of this chapter is to further discuss the current governance gap in the Canadian mining industry, and to provide an overview of the different types of regulations that shape the current transnational environmental regulatory regime in the Canadian Mining Industry. These different types of environmental regulations include national laws, international laws, conditions attached to financing, and industry Corporate Social Responsibility initiatives. As this chapter will show, differences in how laws are applied abroad and what kinds of binding legal requirements they place on Canadian mining companies operating abroad lead to scenarios where a governance gap can

emerge.

**Moving forward, it is important to note that this paper adopts Marie-Laure Djelic and Kerstin Sahlin-Andersson's definition of regulation. Djelic and Sahlin-Andersson argue that in a transnational world, the definition of regulation expands beyond command and control rules and hard laws. Instead, regulation includes not only hard laws, but also soft laws and informal rules, such as standards and guidelines, and CSR initiatives. Under this definition of regulation, states are no longer the sole regulators, as other groups and actors such as NGOs, IGOs, and industry groups play a role in the regulatory process. Based on this definition, the term regulation is used throughout this paper when discussing national laws, international laws, conditions attached to finance, and CSR initiatives. As this chapter makes clear, however, is while the term regulation may apply to all of these categories, the strength and purpose of these regulations differ significantly, making different regulations more effective than others.*

The Governance Gap

It is true that in many cases, and in many countries around the world, the current transnational environmental regulatory framework in the Canadian mining industry may be effective at preventing environmental abuses. Many host-countries in which Canadian mining companies operate have strong national environmental regulations, and have signed on to and enforce international environmental agreements. In many cases, conditions attached to finance and CSR initiatives work complimentary to such regulations, and provide important secondary layers of environmental regulation.

There are also, however, many cases in many countries around the world where the current regulatory regime fails to adequately regulate Canadian mining companies abroad, creating a governance gap that leaves host-countries vulnerable to environmental abuses from the operations of such companies. This governance gap typically occurs under two conditions, which are often satisfied in many countries in which Canadian mining companies operate. The first of these conditions is that national environmental regulations in a host country are inadequate. For the purpose of this paper, inadequate

environmental regulation is characterized by vague or incomplete written laws, as compared to the standards set by Canadian national environmental laws, and/or the inability of host-nations to enforce what laws do clearly exist. As this chapter will discuss, national environmental regulations play perhaps the most important part of the transnational environmental regulatory regime, as it is these regulations that typically place binding legal requirements on mining companies. Without adequate host-government environmental regulations, and with Canadian national regulations inapplicable abroad, there may be no legally binding regulations on companies operating in host-countries with weak national regulations. The second condition for a governance gap to form is that voluntary Corporate Social Responsibility initiatives fail to provide an effective substitution for adequate national regulations. While CSR initiatives are intended to ensure Canadian mining companies operating abroad are maintaining Canadian and International standards of environmental protection, their voluntary nature places no binding requirements on such companies and can often be ignored. As this paper will discuss in Chapter 4, there is also ample evidence suggesting that CSR initiatives are inherently flawed, and cannot be expected to provide a good replacement to national environmental regulations.

In the remainder of this chapter, the different regulations that make up the transnational environmental regulatory framework will be examined. Through examining these regulations, it becomes clear that although this regime is made up of many different regulations, not all regulations are created equally. While some regulations place binding requirements on Canadian mining companies operating abroad, others are designed to work complimentary to binding regulations. Some regulations are binding on companies

operating in Canada, but not on Canadian companies operating abroad. Others are binding on all Canadian companies regardless of where they operate, but enforcement is the duty of host-nations. This paper argues that unless the Canadian government applies and enforces binding regulations on Canadian mining companies operating abroad, the current governance gap will persist and many host-nations will continue to face environmental abuses from Canadian companies.

National Laws

National environmental laws play a crucial role in the transnational environmental regulatory regime. It is national laws that place binding regulations with the purpose of environmental protection on mining companies, and it is national governments with the power to enforce these regulations on companies operating within their territorial boundaries. There are many different types of national environmental regulations that dictate where and how mining can occur. These regulations may be in the form of designated protected areas, regulations on pollution control, regulations on remediation requirements, and many more. The most important type of environmental regulations for controlling mining operations, however, are regulations pertaining to environmental impact assessments. An environmental impact assessment is a process to predict environmental effects of proposed initiatives before they are carried out.[48] An environmental assessment identifies potential adverse environmental effects throughout the lifecycle of an initiative, and proposes measures to help mitigate against these adverse effects. The primary purpose of an environmental assessment is to act as a planning and decision-making tool, helping to minimize environmental damage before it occurs and

[48] (Government of Canada, 2013)

incorporate environmental factors into decision-making. Regulations pertaining to environmental impact assessments form the backbone for national environmental regulation of mining companies, as they lay out exactly what is required in order for mining companies to obtain and keep an operating license, and what the penalties are for breaking environmental requires. When discussing adequate environmental regulations throughout this paper, adequate regulation is usually highly dependent on environmental impact assessment laws. Host-countries with strong written environmental impact assessment laws and the ability to enforce these regulations are often the countries with the best national environmental regulations.

While national environmental laws play perhaps the most important role in the transnational environmental regulatory regime, national regulations are also the most variable type of regulation in this regime. As discussed in the previous section, variations in the strength of host-nation national regulations play a large role in the emergence of the governance gap, as it is in countries with weak national regulations that a governance gap is most likely to form. In Chapter 2, two case studies will be used to illustrate how weak national regulations can lead to a governance gap, and to environmental abuses from Canadian mining companies. In the remainder of this section, however, Canadian national environmental laws will be examined. Despite the fact that the majority of Canadian environmental laws do not apply abroad, these regulations are still discussed in this section. This is because Canadian Environmental Laws provide a good baseline for what adequate environmental regulations should look like. Having such a baseline will be useful in later sections when discussing countries with weak environmental regulations and regulatory shortcomings of voluntary initiatives. Having such a baseline will also

highlight the stark contrast between how Canadian mining companies abroad operate versus how the same company operates at home (or somewhere with adequate regulations similar to Canada).

Canadian National Laws

Environmental regulations in the Canadian mining industry are primarily a product of a number of Federal Acts enforced by the Government of Canada.[49] While environmental regulations may vary from province to province, these provincial environmental regulations are strongly tied to federal environmental regulations, which provide the backbone for environmental regulation in the Canadian mining industry.[50] When discussing the current governance gap in the Canadian mining industry, it is the federal regulations that are of most importance. For that reason, this paper does not include a discussion of the variations in mining regulations between provinces.

There are several Federal Acts that deal with environmental protection from mining. These Acts include the Canadian Environmental Assessment Act, the Fisheries Act, the International River Improvements Act, the National Parks Acts, the Migratory Birds Convention Act, the Species at Risk Act, and the Canadian Environmental Protection Act. A useful way to better understand how these national environmental regulations work is through examining their application at different points in the mining cycle. The mining cycle has 6 distinct phases – available land resources, exploration, assessment and approval, construction, operation, and closure.[51] Different combinations

[49] (Pollution and Waste – Mining, 2013)
[50] (Pollution and Waste – Mining, 2013)
[51] (Life Cycle of a Mine, 2013)

of Acts and regulations come into practice during each of these phases, and act to mitigate different types of environmental damages.

Available Land Resources and Exploration

Available Land Resources and Exploration are the first two phases of the mining cycle. The available land resources phase involves mining companies researching what land is available for mining. The exploration phase involves the search for mineral deposits. During exploration, prospectors and geologists evaluate large areas of land to determine whether or not the area in question has valuable mineral potential. This evaluation is followed up by more detailed surveys and sampling if the area is suspected to contain valuable minerals.[52]

Environmental regulations affect these phases of the mining cycle by regulating where mining companies search for valuable minerals. Under the National Parks Act, Canada has a number of protected areas for the conservation of natural ecosystems. These areas, which currently cover a land area of almost 300,000 km2 or about 2.25% of Canada, are off-limits to mineral exploration and mining.[53] The federal government also has two other types of protected areas – National Wildlife Areas and Migratory Bird Sanctuaries.[54] These areas are designated and protected under the Species at Risk Act and Migratory Birds Convention Act respectively. While mining is typically not permitted in nationally protected areas, there are sometimes exceptions for cases where mineral claims

[52] (Life Cycle of a Mine, 2013)
[53] (Hart, 2012)
[54] (Hart, 2012)

were staked prior to the establishment of the protected area.[55] This is the only exception for mining in a protected area.[56]

Enforcing environmental regulations during the exploration phase of the mining cycle is relatively straightforward. Mining companies must apply for permits before they can begin exploration, and if a company applies for a permit that covers an area designated as protected the permit will not be granted. There is little incentive for companies to violate these laws, since even if they proceeded without an exploration permit, they would still be unable to construct and operate a mining project on protected land. The National Parks Act, the Species at Risk Act, and the Migratory Birds Act all apply only to Canadian mining companies operating in Canada, however. Canadian mining projects abroad must apply for exploration permits through host-governments, and follow whatever regulations exist (or do not exist) in the host country.[57]

Assessment and Approval

The third step in the mining cycle is the assessment and approval phase. During this phase mining companies use the deposit details and environmental and socio-economic information collected during exploration to plan and design the mine. Mining companies must run cost benefit analysis to determine the economic feasibility of the potential mine, and determine what the social and economic benefits are to the mining company, local communities, and the province. Consultations with government agencies

[55] (Hart, 2012)
[56] (Hart, 2012)
[57] (Office of the Auditor General of Canada, 2010)

and local communities are intensive during this phase in order to gain their input into project plans and to make sure that their needs and requirements are addressed.[58]

During the assessment and approval phase, mining projects are required to submit an environmental assessment under the Canadian Environmental Assessment Act.[59] Submitting an environmental assessment involves the identification of all potential adverse environmental effects associated with the project (in the form of an Environmental Impact Statement), proposed measures to mitigate adverse environmental effects, predications as to whether significant adverse environmental effects will remain after mitigation efforts, and the inclusion of a follow-up program to verify the accuracy of the environmental assessment and the effectiveness of the mitigation measures.[60] Once submitted, environmental assessments are reviewed by a responsible authority such as a government agency or a review panel of individuals appointed by the Minister of Environment. The environmental assessment is examined on the basis of a number of different criteria, including the significance of environmental effects, purpose of designated project, alternative means of carrying out the designated project, and other relevant matters. If reviews find that a project will have significant negative effects on the environment that are not offset by benefits, or negative effects that cannot be compensated for, the project is rejected and thus cannot move forward.[61] In certain cases where a federal responsible authority proposes to initiate or provide funding for a project, the Canadian Environmental Assessment Act will apply to mining projects abroad. For

[58] (Life Cycle of a Mine, 2013)
[59] (Office of the Auditor General of Canada, 2010)
[60] (Canadian Environmental Assessment Agency, 2013)
[61] (Canadian Environmental Assessment Agency, 2013)

the most part, however, mining projects outside of Canada do not typically trigger an assessment under the Canadian Environmental Assessment Act.[62]

The assessment and approval phase also requires mining companies to apply for a number of other separate specific authorizations for use of land and water, camp construction, and other operational needs. While such authorizations typically do not have any major implications to the approval of a project, they still must fall in line with regulations pertaining to Environmental Acts such as the International River Improvements Act, the Migratory Birds Act, and the Species at Risk Act.[63]

Construction and Operation

Construction and operation are the fourth and fifth phases of the mining cycle, but are grouped together in this section because many of the same regulations apply to both phases. The construction phase involves the construction of the mine and associated buildings, as well as all supporting infrastructure such as roads, bridges, airports, etc. The operation phase involves the extraction of rock bodies such as ore, and the separation and processing of minerals.[64]

The construction and operation phases of the mining cycles have the greatest potential to cause environmental damage. Concerns over water pollution such as Acid Mine Drainage and contamination, as well as the treatment and disposal of tailings and spoil tips are greatest during these phases. Environmental concerns during these phases are for the most part covered by two sets of federal regulations – the Metal Mining Effluent Regulations, under the Fisheries Act, and regulations under the Canadian

[62] (Office of the Auditor General of Canada, 2010)
[63] (Hart, 2010)
[64] (Life Cycle of a Mine, 2013)

Environmental Protection Act. The Metal Mining Effluent Regulations were created in 2002 and act to set standards for the disposal of mine effluents into surface water and groundwater containing aquatic organisms.[65] The regulations require companies to conduct toxicity tests and monitor the biological effects in the immediate vicinity, and downstream, of the mine. Reports detailing the pH and levels of contaminants are submitted to the federal government quarterly, along with a comprehensive report annually. Companies that violate these regulations face fines and run the risk of being shut down. Mining operations that are not captured under the MMER, such as coalmines, diamond mines, quarries, and other non-metallic mineral mining facilities, are subject to the requirements of the Fisheries Act, which similarly sets stringent standards for mining effluents.

The environmental impact of mining during the construction and operation phases is further mitigated by the Canadian Environmental Protection Act (CEPA), which includes provisions for the safe transport, storage, and disposal of fuels and toxic substances. While also concerned with water pollution, CEPA contains most of the important regulations for solid waste and other types of waste. Similar to the Fisheries Act and the MMER, the CEPA includes reporting requirements for the emission of toxic substances, such as waste rock, tailings, effluents, and air emissions. Failure to follow regulations laid out in the CEPA could result in maximum fine of up to $1 million a day for each day an offence continues, imprisonment for up to 3 years, or both. The Act includes mandatory sentencing criteria for consideration by the courts such as the cost to remedy the damage done to the environment. Violators may also have to pay for cleanup

[65] (Office of the Auditor General of Canada, 2010)

costs or forfeit any profits earned as a result of an offence. Corporate officials can also be prosecuted if they authorize, accept or participate in any violation of CEPA 1999 or its regulations.[66] Neither the Fisheries Act, including the Metal Mining Effluent Regulations, nor the Canadian Environmental Protection Act apply to Canadian mining projects abroad.

Closure and Rehabilitation

Mine closure and rehabilitation is the final phase of the mining cycle. Closure involves the removal of equipment, the dismantling of facilities, and the safe closure of all mine workings, while rehabilitation involves land reclamation, which consists of earth work and site restoration including revegetation of waste rock disposal areas. The goal of land reclamation is for areas affected by mining activity to host self-sustaining ecosystems that provide a healthy environment for fish, wildlife and humans.[67] Regulations affecting mine closure are actually implemented at a number of different points during the mining cycle. During the assessment and approval phase, mining companies are required to submit a mine closure plan under the Canadian Environmental Assessment Act. Mine closure plans must adequately address concerns such as waste disposal, spoil disposal, and ecosystem rehabilitation in order for the mining project to be approved. In some cases, funds dedicated to restoration must be put aside and guaranteed before a mining project is approved.[68] Restoration efforts do not necessarily occur exclusively during the closure and rehabilitation phase. Often, mining projects engage in ongoing restoration efforts during the operation phase, with the bulk of restoration then

[66] (Office of the Auditor General of Canada, 2010)
[67] (Life Cycle of a Mine, 2013)
[68] (Canadian Environmental Assessment Agency, 2013)

happening after closure. During operation and closure, many of the regulations in the Canadian Environmental Protection Act and the Fisheries Act directly regulate how pollution and waste must be eliminated in order to meet adequate restoration goals. The final step in a mining closure plan usually involves some sort of environmental monitoring program that includes environmental testing and structural assessments. These programs may remain in effect long after a mine is closed to ensure that there is no long-term post-mining damage.

TABLE 1- SUMMARY OF FEDERAL ENVIRONMENTAL REGULATIONS IN THE CANADIAN MINING INDUSTRY[69]

Phase / Regulation	**Available Land Resources and Exploration Phases**	**Assessment & Approval Phase**	**Construction and Operation Phases**	**Closure & Rehabilitation Phase**
Federal Act	National Parks Act Species at Risk Act Migratory Birds Act	Canada Environmental Assessment Act National Parks Act Species at Risk Act Migratory Birds Act International Rivers Act	Fisheries Act Canada Environmental Protection Act	Canada Environmental Assessment Act Fisheries Act Canada Environmental Protection Act
Function	**All** – Designation of Protected Areas off limits to mining	**CEAA** - Requires companies to carry out environmental assessments **All** -Provide requirements for various permits needed to proceed with project	**FISHERIES** - Regulates mine effluents, requires toxicity tests, disposal requirements **CEPA** - Regulates generation, disposal and transportation of toxic waste	**CEAA** - Requires companies to develop mine closure plan before project begins **FISHERIES & CEPA** - Regulates disposal of waste product
Binding	Yes	Yes	Yes	Yes
Enforcement Mechanism/*Regulator*	Denial of Exploration Permit / *Government of Canada*	Rejection of Project / *Government of Canada*	Financial Penalties Cease and Desist Order Prison Sentences / *Government of Canada*	Financial Penalties / *Government of Canada*
Application Abroad	Not applied abroad	Applied abroad only to projects funded by government of Canada. Typically not applied abroad.	Not applied abroad	Not applied abroad

[69] (Elaborated by author)

International Law

There are a number of international environmental treaties and conventions that play an important role in the transnational environmental regulatory regime. These laws can be divided into three categories: Access Control Laws, that act to control where mining can occur; Process Control laws, that act to control how mining can occur; and Product Control laws, that act to control what materials can be mined.

Access Control Laws

Access control laws regulate where mining can take place and are typically concerned with issues regarding nature preservation and biodiversity. One of the foremost examples of international environmental access control law is The 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage (the World Heritage Convention), which primarily deals with nature preservation. The World Heritage Convention designates outstanding natural and cultural sites as part of "the world heritage".[70] UNESCO listed sites are considered preserved land, not open to mining. Other examples of natural preservation laws include the 1940 Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, and the 1971 Ramsar Convention on Wetlands of International Importance, which protects over 1000 wetlands covering millions of hectares.[71]

Access control laws concerning biodiversity are largely covered under the Convention on Biological Diversity (Biodiversity Treaty), a product of the 1992 Earth Summit in Rio de Janeiro. Its core concept is that nations are "responsible for conserving their biological diversity

[70] (United Nations Conference on Trade and Development, 2010)
[71] (United Nations Conference on Trade and Development, 2010)

and for using their biological resources in a sustainable manner"[72]. It requires State parties to develop and implement national biodiversity plans, which are to include inventories, monitoring, planning, management, new laws, and the establishment of protected areas of in situ biodiversity.[73]

A final important access control law is The Convention on Environmental Impact Assessment in a Trans-boundary Context (Espoo Convention). The Espoo Convention requires nations to implement environmental assessment regulations, and played an important role in shaping the Canadian Environmental Assessment Act. The convention also includes provisions for mining projects that may have "significant adverse impacts"[74] across national borders in another country.[75]

Process Control Laws

Process control laws deal mainly with issues such as water pollution, air pollution, and solid waste management. Water quality laws include a number of treaties regulating marine pollution from land-based sources, vessels, and dumping, as well as treaties regulating the pollution of fresh water resources. One example of these treaties is the 1978 United States-Canada Great Lakes Water Quality Agreement (USCGLWQT), which deals with trans-boundary water pollution. Air pollution treaties include the 1979 Convention on Long-Range Trans-boundary Air Pollution (LRTAP), which currently consists of eight protocols setting specific emissions limitations on gases such as sulfur dioxide, nitrogen oxides and volatile organic

[72] (United Nations Conference on Trade and Development, 2010)
[73] (United Nations Conference on Trade and Development, 2010)
[74] (United Nations Conference on Trade and Development, 2010)
[75] (United Nations Conference on Trade and Development, 2010)

compounds. The LRTAP Heavy Metals Protocol is especially relevant for the mining industry as it concentrates primarily on the emissions of lead, cadmium and mercury.

Product Control Laws

Product control laws act to regulate the use and exchange of certain materials that are believed to be dangerous to the environment or to human health. The Basel Convention (1989), for example, restricts the use of certain metals and minerals in consumer products, which restricts mining companies access to markets.[76] This makes mining metals and minerals restricted by the Basel Convention less lucrative for mining companies. The Basel Convention, through the Trans-boundary Movement of Hazardous Wastes and Their Disposal Convention, also contains laws regulating the trade of certain types of hazardous materials. Other treaties including the 1991 Bamako Convention and the 1995 Waigani Treaty, which include outright bans on imports-exports of hazardous waste into Africa and the South Pacific Islands respectively. This includes bans on metals and other substances destined for recovery and/or recycling.[77]

Application Abroad

The application of international laws is the individual responsibility of each country that ratifies an international convention or treaty. The international treaties and conventions discussed in this section have all been ratified by the Canadian Government, and thus the resultant regulations are binding on Canadian mining companies operating in Canada, enforceable by the Canadian Government. Many companies, however, operate in countries that either have not

[76] (United Nations Conference on Trade and Development, 2010)
[77] (United Nations Conference on Trade and Development, 2010)

ratified these international laws, or do not have the resources to enforce such laws. As a result, even though the Canadian government has signed on to these international agreements, many Canadian companies are not required to adhere to their regulations. Because of this, the effectiveness of international environmental regulations abroad is just as variable as the effectiveness of national environmental regulations. If a host-government is able to effectively enforce environmental regulations, and has signed on to a particular international agreement, then such international regulations provide an important function in the transnational environmental regulatory framework. If, however, a host-government is ineffective at enforcing environmental regulations, or has not signed on to international agreements, then international regulations would not have any impact on the transnational environmental regulatory regime. With regard to the governance gap, international laws cannot provide a replacement for inadequate national laws, as having adequate national regulation is usually a prerequisite for being able to enforce international laws.

TABLE 2- SUMMARY OF INTERNATIONAL ENVIRONMENTAL REGULATIONS IN THE CANADIAN MINING INDUSTRY[78]

Phase / Regulation	Available Land Resources and Exploration Phases	Assessment & Approval Phase	Construction and Operation Phases	Closure & Rehabilitation Phase
International Treaty or Convention	World Heritage Convention Ramsar Convention Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere Biodiversity Treaty	Espoo Convention	United States-Canada Great Lakes Water Quality Treaty Convention on Long Range Trans-boundary Air Pollution Basel Convention Bamako Convention Waigani Treaty	Espoo Convention Basel Convention
Function	**All** – Designation of Protected Areas off limits to mining	**Espoo** - Requires companies to carry out environmental assessments. Convention behind the Canada Environmental Assessment Act	USCGLWQT & LRTAP – Regulates pollution from mining operations Basel Convention – Regulates pollution and sets product bans Bamako & Waigani – regulates trade of toxic waste	Espoo - Requires companies to develop mine closure plan before project begins Basel – Regulation on Waste Disposal
Binding in Canada	Yes	Yes	Yes	Yes
Enforcement Mechanism/ *Regulator*	Denial of Exploration Permit / *National Government*	Rejection of Project / *National Government*	Financial Penalties Cease and Desist Order / *National Government*	Financial Penalties / *National Government*
Application Abroad	Applied in participating countries. Enforcement the duty of host-governments	Applied in participating countries. Enforcement the duty of host-governments	Applied in participating countries. Enforcement the duty of host-governments	Applied in participating countries. Enforcement the duty of host-governments

[78] (Elaborated by author)

Conditions Attached to Financing

Mining is a very capital-intensive industry, and requires fresh sources of financing at every different phase of the mining cycle.[79] This dependency on high levels of financing has allowed International Finance Institutions and commercial banks to play an increasingly important role in regulating the mining industry's impact on the environment. Over the last two decades, these institutions have begun conditioning their loans, aid, underwriting, and other involvement on the target project's environmental acceptability.[80] Environmental requirements for financing have mostly followed two major global frameworks – the Equator Principles, and the International Finance Corporation's (IFC) Sustainable Framework.

The Equator Principles (EPs) is a credit risk management framework used to determine, assess, and manage environmental and social risk in Project Finance transactions, including mining projects. The EPs have become the industry standard for environmental and social risk management institutions and financial institutions, and are applied where total project capital costs exceed US$10 million.[81] The EPs are primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making. They are based on the International Finance Corporation Performance Standards on social and environmental sustainability and on the World Bank Group Environmental, Health, and Safety Guidelines. Institutions that apply to the EPs commit to not providing loans to projects where the borrower will not, or is unable to, comply with their respective social and environmental policies and procedures.

[79] (Goss, 2011)
[80] (Dashwood, 2011)
[81] (Equator Principles, 2013)

The International Finance Corporation's (IFC) Sustainable Framework is a similar tool that is used to manage environmental and social risk for lenders. The framework provides guidance on how to identify risks and impacts, and how to help avoid, mitigate, and manage these risks in a sustainable way. The IFC Sustainable Framework is based on 8 performance standards, including standards on environmental assessment, pollution prevention, and biodiversity conservation.[82] The Framework was first released in 2006 as a product of a series of multi-stakeholder negotiations known as the Extractive Industry Review, and was updated in early 2012.

Restrictions attached to financing such as the Equator Principles and the IFC Framework for Sustainability apply to mining projects regardless of their geographical location, meaning that even Canadian mining companies operating abroad must adhere to the guidelines of these frameworks in order to qualify for financing. While such frameworks provide important rules for mining companies operating abroad, they are not comparable to the types of environmental regulations set out by national and international laws. This is because although IFIs and commercial banks can use financial restrictions to influence the behavior of Canadian mining companies operating abroad, their interests typically extend only as far as loan repayment.[83] In terms of the issue of the governance gap, conditions attached to finance would not provide regulations comprehensive enough to fill the regulatory gap that forms in countries with inadequate national environmental regulations. Instead, conditions attached to finance should be regarded as a tool that compliments national regulations, and works to bolster the regulatory regime in countries that have adequate national regulations.

[82] (International Finance Corporation, 2013)
[83] (Goss, 2011)

TABLE 3- SUMMARY OF CONDITIONS ATTACHED TO FINANCE IN THE CANADIAN MINING INDUSTRY[84]

Phase / Regulation	**Available Land Resources and Exploration Phases**	**Assessment & Approval Phase**	**Construction and Operation Phases**	**Closure & Rehabilitation Phase**
Financial Framework	Equator Principles IFC Framework for Sustainability			
Function	EPs - provide a minimum standard for due diligence to support responsible risk decision-making based on the International Finance Corporation Performance Standards on social and environmental sustainability and on the World Bank Group Environmental, Health, and Safety Guidelines. IFC – provides guidance on how to identify environmental risks and impacts, and how to help avoid, mitigate, and manage these risks in a sustainable way.			
Binding	Requirement to receive funding			
Enforcement Mechanism / *Regulator*	Denial of Financing / *Financers*			
Application Abroad	Applied to all mining projects			

[84] (Elaborated by author)

Corporate Social Responsibility Initiatives

In addition to National and International regulations, and conditions attached to financing, the Canadian mining industry is also loosely governed by a number of Corporate Social Responsibility (CSR) initiatives. CSR initiatives are generally defined as the voluntary activities undertaken by a company to operate in an economically, socially and environmentally sustainable manner.[85] Although these policies are not binding to mining companies, they still may play a significant role in the integrity of a company's reputation, and the satisfaction of company shareholders.[86] CSR initiatives began to be implemented in the 1990s for exactly these reasons – in the face of a number of bad environmental disasters the reputation of the mining industry as a whole came under fire. CSR was a response to save face, and to provide a mechanism for companies to incorporate sustainable development principles into their internal operations..[87] Currently, there are three major CSR programs governing Canadian mining companies – Towards Sustainable Mining, The International Council on Mining and Metals ICMM Sustainable Development Framework, and the Prospectors and Developers Association of Canada e3 Plus.[88]

Towards Sustainable Mining

Towards Sustainable Mining (TSM) was launched in 2004 by the Mining Association of Canada (MAC). The initiative's content is focused on a number of broad guiding principles, including the minimization of mining impact on the environment and biodiversity, transparent and accountable business operations, and complying with laws and regulations. Participation in

[85] (Foreign Affairs and International Trade Canada, 2012)
[86] (Goss, 2011)
[87] (Dashwood, 2011)
[88] (Lindsay, 2011)

the program is voluntary, and as of 2008 17 companies participated out of the 30 member companies. Participation in TSM included conducting self-assessments of performance against program performance indicators. Performance indicators include tailings management, energy and greenhouse gas emissions, external outreach, and crisis management planning. A MAC-approved and certified verification service provider verifies assessments every three years, and a Advisory Panel may then review these verifications. As of 2012, reporting and verification results are made public.[89]

Sustainable Development Framework

The International Council on Mining and Metals' (ICMM) Sustainable Development Framework (SDF) was launched in 2003. The framework is guided by 10 broad principles, which capture many of the same objectives as the TSM framework. The ICMM SDF requires companies to report in accordance with Global Reporting Initiative standards, and for these reports to be verified by a third party. The ICMM framework also places great importance on information sharing through online resources. Participation in the SDF is a pre-requisite for ICMM membership, therefore all members of the ICMM take part in this initiative. [90]

Prospectors and Developers Association of Canada – e3 Plus

E3 is an initiative that was launched by the Prospectors and Developers Association of Canada (PDAC) in 2003 and updated to e3 Plus in 2009. While similar to TSM and ICMM in terms of guiding principles, the e3 Plus focuses less on reporting and verification and more on providing companies with guidance on best practices and the implementation of best practices.

[89] (Lindsay, 2011)
[90] (Lindsay, 2011)

The framework provides a number of different environmental stewardship "toolkits" in areas such as waste management, reclamation and closure, fish and wildlife, hazardous materials, land disturbance, and others. Reporting and verification have recently been phased into the framework, but have yet to be fully implemented.[91]

Corporate Social Responsibility Abroad

Corporate Social Responsibility Initiatives apply to mining projects both in Canada and abroad, and play a large role in the debate over the governance gap in the Canadian mining industry. In countries with weak national environmental regulations, CSR initiative guidelines may be the only environmental guidelines under which Canadian mining companies are expected to operate.[92] Proponents of applying binding regulations to mining companies abroad, however, have made strong arguments indicating that CSR initiatives have been ineffective at regulating mining companies abroad, and that such initiatives cannot be expected to make a substantial impact on the operations of mining companies abroad. The Canadian mining industry, on the other hand, argues that CSR initiatives are the best way to govern mining companies abroad, and that CSR initiatives alone can, and already are, addressing the concerns being raised about mining companies operating abroad. While it is true that in some cases, CSR initiatives are able to ensure that Canadian mining companies operating abroad are operating in an environmentally friendly manner, there is ample evidence to suggest that as a whole, CSR initiatives do not provide a consistent and reliable replacement for adequate national regulation, and cannot be seen as a solution to closing the governance gap. CSR initiatives will be further discussed in Chapter 4.

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[91] (Lindasy, 2011)
[92] (Dashwood, 2011)

TABLE 4- SUMMARY OF INDUSTRY CORPORATE SOCIAL RESPONSIBILITY INITIATIVES IN THE CANADIAN MINING INDUSTRY[93]

Phase / Regulation	**Available Land Resources and Exploration Phases**	**Assessment & Approval Phase**	**Construction and Operation Phases**	**Closure & Rehabilitation Phase**
CSR Initiative	The International Council on Mining and Metals (ICMM) Sustainable Development Framework The Mining Association of Canada (MAC) - Towards Sustainable Mining The Prospectors and Developers Association of Canada (PDAC) –e3 Plus			
Function	ICMM & MAC – Provide guiding principles for sustainable development, guidelines for transparent reporting, and third party verification of reporting PDAC – Acts as an information resource for mining companies, providing "toolkits" on various environmental topics. Reporting and Verification not yet implemented			
Binding	No – CSR initiatives are voluntary			
Enforcement Mechanism/ *Regulator*	Sanctions for not following CSR initiatives include exclusion from industry groups (PDAC)/ *Industry Groups and individual companies*			
Application Abroad	Applied to all mining projects			

[93] (Elaborated by author)

Chapter 3 – Case Studies

Under the current international regulatory regime, Canadian Mining companies are regulated by a combination of national laws, international laws, conditions attached to financing, and Corporate Social Responsibility Initiatives. As Chapter 1 indicated, however, not all types of laws are created equally. In cases where host-nations have inadequate national environmental regulations, there may be no other types of regulations comprehensive enough to replace them. When this happens, there is said to be a governance gap. The consequences of this governance gap can be very severe, as mining companies are effectively left unregulated, exposing a host country to a wide variety of environmental hazards. In this chapter, two cases studies have been chosen to illustrate exactly how damaging this governance gap can be. In both case studies, host-countries suffer from having weak national regulatory regimes, and the inability to effectively enforce existing national and international laws. In both cases studies, prominent Canadian mining companies have been accused of committing environmental abuses as a result of operating under weak environmental regulations. While these two case studies deal with specific countries– Mongolia and Guatemala – it is important to point out that their experiences are representative of many other countries that Canadian firms operate in.

Case Study 1 – Oyu Tolgoi Mine, Mongolia

Overview

Since Mongolia entered into a mining boom in 2009, the national government has been rushing to reform environmental regulations in order to create a sustainable and long-lasting mining sector. To date however, environmental regulations in Mongolia remain weak, with

vague written laws and a lack of capacity to enforce the laws that do exist clearly. Under the current regulatory framework, Mongolia is extremely exposed to the governance gap in the Canadian mining industry, and there is already evidence that Canadian companies are committing environmental abuses within the country. The most serious allegations have been directed towards Mongolia's flagship mining project, the Oyu Tolgoi copper and gold mine. Jointly owned by Canadian operated Turquoise Hill and Rio Tinto, and the government of Mongolia, Oyu Tolgoi has for several years been the subject of environmental investigations by local and Global NGOs, and International Governmental Organizations. These investigations have stemmed from reports indicating that the Oyu Tolgoi project may cause a shortage of water and an increase of dust which will lead to "desertification and the decreasing quality of vegetation" in the region, thus jeopardizing the livelihoods of traditional Mongolian herders in the South Gobi region. Many of these concerns, however, would have been adequately addressed if proper environmental regulations were in place and enforced. Under the current governance gap, however, Oyu Tolgoi has developed into a high profile, global environmental controversy, which could have serious consequences for the future of the Mongolian mining industry.

Mongolia Mining History

Mongolia has long been known for its mineral reserves. Over a century ago British exploration teams were actively surveying the area, and exploration during the Soviet Era led to the discovery and exploration of various mineral reserves. While such discoveries led to a handful of major mining projects, Mongolia's natural resources remained largely untapped.[94] In 1994, the Mongolian parliament began revising mining regulations in an attempt to attract foreign investment. Because the Mongolian government was financially constrained and mineral

[94] (Storry & Ashikhimina, 2010)

prices were low in the 1990s and early 2000s, potential investors were able to negotiate very attractive terms to come to the country.[95] This led to an inflow of foreign-based exploration teams searching for new mineral reserves and assessing the feasibility of extracting known mineral reserves.[96] In 2009, the Government of Mongolia signed a landmark deal with Canadian owned Turquoise Hill and Rio Tinto to begin construction on the Oyu Tolgoi project, a massive copper and gold mine which provided Mongolia with 4.6 Billion USD in Foreign Direct Investment – by far the largest FDI in Mongolian history.[97] With a 45-year life span, Oyu Tolgoi is now scheduled to produce 450,000 tonnes of copper per year, an amount equal to 3% of global copper production.[98] The Oyu Tolgoi deal has since come to represent a changing of times in Mongolia. Oyu Tolgoi sent a message to the global market that Mongolia was "open for business" and a favorable location for investment.[99] Combined with increasing mineral demands from neighboring China and Mongolia's ample supply of mineral resources, Mongolia has entered into a mining boom with large amounts of foreign direct investment now surging into the country.[100]

Environmental Regulations in Mongolia

Mongolia's mining boom has led to serious concerns over the current state of mining regulations within the country.[101] For much of its recent history, Mongolia's mining law has focused on attracting foreign investment. As a result, up until the late 2000s mining companies operating in Mongolia were often able to hold a disproportionate amount of power over the terms

[95] (Storry & Ashikhimina, 2010)
[96] (Storry & Ashikhimina, 2010)
[97] (The Economist, 2012)
[98] (The Economist, 2012)
[99] (Storry & Ashikhimina, 2010)
[100] (Storry & Ashikhimina, 2010)
[101] (Jargalsaikhany, 2013)

of their projects.[102] Now that foreign investment is rapidly surging into the country, however, and Mongolia has established itself in the international resource extraction market, the focus of mining regulations is beginning to shift away from providing investment incentives and towards creating a sustainable and long-term mining sector capable of driving the country's long-term economy.[103] While the government of Mongolia has pledged to reform mining regulations, this is proving to be a lengthy process.[104] Four years after the Oyu Tolgoi agreement was made, the project is now set to begin operating by the end of 2013. Concerns still remain, however, over the current state of Mongolia mining law.[105]

One of the primary concerns with Mongolia's mining law is the current state of environmental regulations.[106] In the early 1990s, Mongolia developed a set of comprehensive environmental regulations meant to apply to the mining industry. These laws, however, suffered from being complicated, confusing, and vague.[107] Interpretation of these laws often prioritized satisfying potential investors as opposed to ensuring environmental integrity.[108] In 2012, the government of Mongolia voted in favor of introducing a completely new environmental regulatory regime that would help achieve the goal of creating a sustainable mining sector within the country.

Included in the new framework were policies with the purpose of promoting environmentally- friendly and sustainable development, improving economic efficiency, introducing international standards in environmental auditing, increasing public participation in

[102] (Storry & Ashikhimina, 2010)
[103] (Jargalsaikhany, 2013)
[104] (Jargalsaikhany, 2013)
[105] (Jargalsaikhany, 2013)
[106] (Jargalsaikhany, 2013)
[107] (Jargalsaikhany, 2013)
[108] (Jargalsaikhany, 2013)

environmental decision-making, and securing funds for environmental protection.[109] While this new framework did appear to be an improvement on the older regime, there were still a number of concerns regarding the comprehensiveness and quality of the new regulations.[110] Critics point out that much of the drafting is either vague or left to be developed by Government agencies at a later date. For example, under the new regulatory regime mining companies are required to submit an Environmental Audit to the Government of Mongolia every 2 years. The law, however, has no penalty for non-compliance.[111] In many cases the new laws also refer to penalties based on the "intrinsic value" of a resource. For example, the penalty for excess water usage is determined as a "percentage of the intrinsic environmental value" of water in the region. The law does not stipulate, however, what "intrinsic values" are.[112] Because of the unclear language and lack of detail, it is argued that the new Mongolian regulatory framework amounts to little more than a set of "guiding principles" as opposed to a strong set of concrete regulations.[113]

Environmental regulatory problems in Mongolia are further exacerbated by poor coordination among ministries and agencies, inadequate monitoring of natural resource conditions and weak enforcement of environmental regulations.[114] While the Government of Mongolia is trying to mainstream environmental concerns into development, and is working with international organizations to promote environmental awareness, environmental management capacity and coordination among ministries and government agencies is still very limited.[115]

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[109] (Hogan Lovells, 2012)
[110] (Hogan Lovells, 2012)
[111] (Hogan Lovells, 2012)
[112] (Hogan Lovells, 2012)
[113] (Hogan Lovells, 2012)
[114] (World Bank, 2013)
[115] (World Bank, 2013)

Although nearly 4,000 employees currently work for the Ministry of Nature and Environment (MNE) at national and local levels, human and financial capacity is insufficient for the ministry's existing implementation, monitoring, and enforcement responsibilities.[116]

Under the current regulatory framework, Mongolia is exposed to the harms of the governance gap in the Canadian Mining Industry. Since 2009, there is already ample evidence indicting that Canadian companies are committing environmental abuses in Mongolia as a result of operating under loose regulations.[117] For examples of such environmental abuses, one has to look no further than to the Oyu Tolgoi copper and gold mine – the landmark mining project which changed the future of Mongolia's mining industry and economy as a whole. Oyu Tolgoi is now at the center of a global environmental controversy, with a group of 39 non-profit environmental groups petitioning the World Bank and the European Bank for Reconstruction and Development to withhold loans for the mine's second stage.[118] This case study takes a closer look at the Oyu Tolgi mining controversy, and how it relates to the governance gap in Mongolia.

The Oyu Tolgoi Controversy

Situated in the southern Gobi desert, Oyu Tolgoi (OT) is the world's largest undeveloped gold and copper mine, and is expected to produce 450,000 tons of minerals annually starting in late 2013.[119] For Mongolia, a country with 1/3 of its population living below the poverty line, the OT project has the potential to significantly change the future of the nation.[120] Current economic projections estimate that the OT mine will account for more than 30% of the country's GDP by

[116] (World Bank, 2013)
[117] (Bankwatch Network, 2012)
[118] (Kohn & Humber, 2013)
[119] (The Economist, 2012)
[120] (The Economist, 2012)

the year 2020.[121] In the third quarter of 2011 Mongolia's economy grew by 21% compared with the same period in 2010, and the IMF expects growth to average 14% a year between 2012 and 2016.[122]

Despite these economic projections, however, many Mongolians remain less optimistic about the benefits of mining.[123] The primary concern over the Oyu Tolgoi project is how it will affect water supplies and pasture lands in the southern Gobi desert.[124] Traditional livelihoods in Mongolia are based primarily on animal husbandry, with animals such as sheep, goats, cattle, horses, and camels producing important sources of meat, milk, wool, and cashmere.[125] Raising such livestock relies on having access to pastureland and water, both of which are already scarce in the Gobi desert.[126] With the coming of the OT project, there have been serious concerns that herders in the area will be in jeopardy of losing their livelihoods and being forced off of their land. These concerns are most seriously voiced in the Khanbogd soum (village), which is the closest settlement to the OT mine. Khanbogd is home to about 630 herder families with more than 100,000 livestock.[127] During the construction of the OT mine, herders in Khanbogd were pushed out of traditional camps, had their pastureland fragmented by mining infrastructure, and had the quality of their vegetation diminished by desertification caused by the amount of dust generated through mine construction.[128] The most serious concern, however, has been the future of Khanbogd's water supply. As with most large mines, Oyu Tolgoi requires access to a significant amount of water during construction and operations. According to a World Bank

121 (The Economist, 2012)
122 (The Economist, 2012)
123 (Bankwatch Network, 2012)
124 (Bankwatch Network, 2012)
125 (Bankwatch Network, 2012)
126 (Bankwatch Network, 2012)
127 (Bankwatch Network, 2012)
128 (Bankwatch Network, 2012)

report, in 2010 Oyu Tolgoi used approximately 67,000 cubic meters of water per day.[129] The 3.8 million livestock and 150,000 residents across the 350,000km2 south Gobi, on the other hand, used only 41,600 cubic meters per day.[130] The World Bank report went on to conclude that at the current rate of consumption, and with new mining projects located in the southern Gobi, known water resources could last just 10-12 years.[131] Although a deep-water aquafier has been located in the region as an additional source of water which may last the lifecycle of the mine, there are currently no concrete plans to link this aquafier up to the Oyu Tolgoi mine, which has left local residents skeptical of Turquoise Hill's promise to leave enough water for residents and their livestock.[132] The environmental conflict between Oyu Tolgoi and south Gobi herders has also been made worse due to a lack of consultation and dialogue between local Soum leaders, Turquoise Hill, and state officials in Ulaanbaatar. According to the Khanbogd Soum leader, community development for the southern Gobi was a result of bilateral negotiations between Turquoise Hill and the central government, with no representation from local officials. Residents of the Soum have repeatedly voiced concerns over about the acute problem of information dissemination, and believe that the OT company only holds community meetings after or project has already begun and there are complaints or protests.[133]

Oyu Tolgoi Regulatory Shortcomings

Central to the Oyu Tolgoi conflict is the issue of environmental regulations. Adequate environmental regulations would typically address many of the concerns of the southern Gobi herders. Issues such as water management, protected pasture lands, and stakeholder participation

[129] (Tuinof & Buyanhisnig, 2010)
[130] (Tuinof & Buyanhisnig, 2010)
[131] (Tuinof & Buyanhisnig, 2010)
[132] (Bankwatch Network, 2012)
[133] (Bankwatch Network, 2012)

would be addressed in socio-economic reports, environmental impact assessments, and mine closure plans. Under the current regulatory landscape, Turquoise Hill and Rio Tinto have been operating primarily under their own internal environmental policy. Under this policy, Turquoise Hill and Rio Tinto have produced and Environmental Impact Assessment Report for Oyu Tolgoi's mining operations. Produced in 2012, the EISA was intended to cover the impacts and mitigation strategies of the OT project throughout its life cycle (design, construction, operation, closure, etc.). Since it's publishing however, the ESIA has been widely criticized on the basis of being both inadequate and incomplete.[134] Specifically, these criticisms have revolved around the content and timing of the ESIA, and the ESIA's water management plan.[135]

Content and Timing of the ESIA

According to the government of Canada, an environmental assessment is a process to predict environmental effects of proposed initiatives before they are carried out.[136] An environmental assessment identifies potential adverse environmental effects throughout the lifecycle of an initiative, and proposes measures to help mitigate against these adverse effects. The primary purpose of an environmental assessment is to act as a planning and decision-making tool, helping to minimize environmental damage before it occurs and incorporate environmental factors into decision-making. As discussed in chapter two, mining companies operating in Canada are bound to the Canadian Environmental Assessment Act, a federal act requiring Canadian mining companies to produce a Environmental Assessment Report for each of their projects, which is then reviewed by a responsible authority before the project is approved. Key components of an EIA include avoiding environmental damage, ensuring that opportunities are

[134] (Oyu Tolgoi Watch, 2012)
[135] (Oyu Tolgoi Watch, 2012)
[136] (Government of Canada, 2013)

provided for meaningful public participation, and ensuring that assessments are completed in a timely manner.[137]

There have been serious claims put forward that the Environmental Assessment submitted for the Oyu Tolgoi Project is incomplete.[138] While the document does provide detailed information on the impacts and management plan of the construction phase, the language on operational and closure plans is vague and sometimes completely omitted.[139] Tailings management, for instance, is one of the most important aspects of a mine operation and closure plan. In OT's ESIA, both the Tailings Management and the Waste Rock Management sections reads "this section is intentionally omitted and will be included with the operations-phase management plans which will be prepared in due course".[140] OT has also yet to release a Mine Closure Plan and other relevant management plans such as the Worker Housing and Development ESIA that evaluates the impact of workers camp on water resources. These documents are not expected until December 2013 at the earliest.[141]

Further to the complaints that the ESIA is incomplete is the claim that the ESIA is retroactive. A key component of an environmental assessment is that the document is completed prior to a project being approved. However, the OT ESIA is dated 31 July 2012, a time when the construction phase was over 94% complete.[142] Oyu Tolgoi mine exploration began in 1997 and continued through the signing of the 2009 Investment Agreement, while construction on the project started in 2010. The tardiness of the ESIA is thus inherently problematic, and is made significantly worse by the omission of management plans for the operational phase of the

137 (Government of Canada, 2013)
138 (Oyu Tolgoi Watch, 2012)
139 (Oyu Tolgoi Watch, 2012)
140 (Oyu Tolgoi Company, 2012)
141 (Oyu Tolgoi Watch, 2012)
142 (Oyu Tolgoi Watch, 2012)

project.[143] The ESIA only contains management plans for the construction phase, all of which are essentially retroactive and ultimately useless.[144] The ESIA, as a financial due diligence document, should describe what the company will do to mitigate risks and impacts, not what it has already done. While it is understood that the development of the ESIA is a lengthy process, the timing of this ESIA suggests that the construction phase management plans were developed concurrently with construction, rather than before when they would be most effective. The same will seemingly be true for the operational phase management plans – initial production and operations is expected to begin prior to the disclosure of the management plans.[145]

Water Management Plan

A major source of conflict in the OT controversy revolves around water management. While Turquoise Hill claims that the OT mine can coexist with local herders, a number of deficiencies have been exposed in the project's Water Management System, calling into question the reliability of Turquoise Hill's claims.

The Gobi Desert consists of two different forms of water supplies – shallow water aquifers, such as streams and rivers, and deep-water aquifers made up of fossil groundwater. Of primary concern to South Gobi Herders are shallow water aquifers, for it these sources from which sustenance water is retrieved.[146] Turquoise Hill has asserted that OT will draw the majority of its water from a deep-water aquifer known as Gunii Hooloi. With this source, Turquoise Hill projects that Oyu Tolgoi can last for 40 years while leaving enough surface water

[143] (Oyu Tolgoi Watch, 2012)
[144] (Oyu Tolgoi Watch, 2012)
[145] (Oyu Tolgoi Watch, 2012)
[146] (Oyu Tolgoi Watch, 2012)

for Gobi herders.[147] But the OT's ESIA currently fails to identify concretely that the Gunii Hooloi aquifer will supply all the water needs of the mine without impacting the shallow aquifers beyond 2020, less than half of the mine's expected 27-year life span.[148] Serious concerns have been raised over the linkage between the deep-water aquifers and shallow aquifers in the South Gobi.[149] As it is, the ESIA includes no guarantees that abstraction from the deep aquifer will not adversely impact the shallow aquifers. There are concerns that that abstraction techniques may cause holes to form in the clay layer that separates the shallow water aquifer from the deep-water aquifer. Such "boreholes" would then lead to leakages between the two aquifers, acting to drain a portion of the shallow water aquifers into the deep-water aquifers.[150] The ESIA, in fact, admits that such leakage may already be occurring. These findings were confirmed in June of 2012 when an independent group of Korean researchers identified at least four different boreholes. Local herders have noted that several wells along the Gunii Hooloi pipeline have already dried up, and they are afraid that further leakages could lower the water table enough that the shallow aquifers effectively disappear.[151]

Further concerns over OT's ESIA Water Management Plan focus on the Undai River. The Undai River is an ephemeral stream that provides the main source of surface water used by herders and wildlife in Khanbogd soum. The river also, however, flows directly through the Oyu Tolgoi mine license area. As the open pit mine is being constructed in the middle of the Undai River watercourse, the there are plans to divert the river using a cut-off wall and subsurface pipeline. As part of this diversion plan, a 6.8 km section of the river is expected to be lost,

147 (Oyu Tolgoi Watch, 2012)
148 (Oyu Tolgoi Watch, 2012)
149 (Oyu Tolgoi Watch, 2012)
150 (Oyu Tolgoi Watch, 2012)
151 (Oyu Tolgoi Watch, 2012)

including the Bor Ovoo spring, a very important surface water source in the region. While OT claims that the company plans to create an artificial spring that recreates the ecosystem services provided by Bor Ovoo, there are no such plans included in the current ESIA. Instead, the ESIA states that this information will be made available at a later date.[152]

The Future of the Mongolia Mining Industry

As the Oyu Tolgoi controversy intensifies, questions are being raised over the future of the Mongolian mining industry. In addition to the environmental damage that may be done to traditional South Gobi herders, there are concerns that the OT controversy may have larger scale consequences for the country as a whole. One of these concerns is that Mongolia will suffer from the "Dutch Disease".[153] The Dutch Disease is an economic phenomena in which there is an apparent relationship between the increase in exploitation of natural resources and a decline in the in other sectors, such as agriculture for example. Under the Dutch Disease Theory, a country will specialize in industries in which it has a comparative advantage, so theoretically a country rich in natural resources would be better off specializing in the extraction of natural resources.[154] However, problems can arise if countries become too dependent on natural resources, and neglect other industries. According to the theory, specialization solely in the extraction of natural resources could be detrimental, for instance, when the natural resources begin to run out or if there is a downturn in prices and other industries cannot return as quickly or as easily as they left.[155] In the case of Mongolia, there is concern that environmental damage associated with mining, and the mentality that mining takes priority to other industries, will act to deteriorate and

[152] (Oyu Tolgoi Watch, 2012)
[153] (The Economist, 2012)
[154] (The Economist, 1977)
[155] (The Economist, 1977)

eliminate the country's agriculture and animal husbandry industries, thus exposing the country to the negative economic impacts that can be attributed to the Dutch Disease.[156] While it is not argued that environmental abuses from Canadian mining companies alone would be responsible for bringing the Dutch Disease to Mongolia, there are concerns that such environmental abuses may play a role in promoting the phenomenon due to the negative impacts on the livelihoods of Traditional South Gobi Herders, who contribute primarily to the Mongolian agriculture and animal husbandry industries.

Another concern is that environmental damages from foreign mining companies will push the Government of Mongolia towards resource nationalization.[157] Resource nationalization would involve taking the mineral resource industry and its assets into public ownership by the Government of Mongolia, thus restricting Canadian mining companies from beginning new projects in the country and complicating existing projects.[158] Resource nationalization in Mongolia would be detrimental to Canadian mining companies, and mining companies in other countries, due to the large mineral reserves that exist within the country and the revenue that could be generated through exploiting such reserves.[159] While the Mongolian Government has made threats over resource nationalization in the past, it is considered unlikely that the Government will follow through on these threats due to the fact that, for now, the economic benefits of a booming Mongolian mining industry appear to outweigh the economic consequences of restricting foreign investment through resource nationalization.[160] Regardless of whether Mongolia does end up suffering from the Dutch Disease, or decides to pursue resource

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156 (The Economist, 2012)
157 (Financial Post, 2013)
158 (Financial Post, 2013)
159 (Financial Post, 2013)
160 (Financial Post, 2013)

nationalization, the current environmental abuses occurring in the country as a result of Canadian mining company's is damaging to the people of Mongolia and to the reputation of Canadian mining industry, and as a result must be stopped.

Case Study – Marlin Mine, Guatemala

Overview

After emerging in 1996 from a nearly four-decade-long civil war, the Government of Guatemala looked to mining law reform as a strategy to attract foreign direct investment and spur development within the country. In order to do this, the reforms provided controversial royalty and tax incentives to attract global mining industries. Also controversial with the new mining reforms were their provisions for environmental regulation. Under the new reforms, mining companies were given practically complete control over the degree to which they would report on their environmental impact. Where concrete regulations did exist, there were concerns over whether or not penalties could be enforced by an under-funded environmental branch of the Guatemalan Government. Under such regulations, Guatemala became fully exposed to the dangers of the governance gap. It did not take long before concerns over the new environmental regulations came to fruition. The first mining project after regulatory reforms, the Marlin Mine, spurred a global environmental controversy that is still being debated today. Owned by Canadian mining company Goldcorp, the project has been accused of contaminating local waterways with highly toxic cyanide and heavy metals. Such contamination has been blamed on the project's poor waste management plan contained in the project's Environmental Impact Assessment. Environmental abuses from Canadian mining companies operating in Guatemala has caused

widespread local conflicts, and has pushed the country to the verge of freezing all new mining licenses within the country until something can be done to prevent further abuses.

Guatemala Mining Regulations

The recent history of Guatemala has been largely characterized by The Guatemala Civil War, which was fought between the years 1960-1996. Fought between the Government of Guatemala and various leftist rebel groups supported chiefly by the rural poor, the Civil War resulted in political instability for nearly four decades and the genocide of over 250,000 indigenous people.[161] In 1996, Guatemala emerged from the war as an extremely impoverished nation, with over 60% of its population living in poverty and nearly 17% of this population living in extreme poverty.[162]

In an attempt to attract foreign investment and spur development within the country, the government of Guatemala drafted a new set of mining laws that provided large incentives for mining companies to come to Guatemala. Included in these incentives was a law that reverses previous prohibitions on 100 percent foreign-owned mining operations and established the lowest royalty rates in the country's history. Royalties were reduced form 6% on gross production revenue to 1%, with the tax rate falling well below the Latin American average of 11.7%.[163] The new law also implemented a series of tax exemptions for mining companies, which add up to a minimal tax burden for mining corporations.[164] However, while the primary purpose of reforming the mining laws was to bolster the Guatemala mining sector and attract FDR, the new mining law faced immediate criticism for going too far in creating incentives for

[161] (Fulmer et al., 2008)
[162] (Fulmer et al., 2008)
[163] (Fulmer et al., 2008)
[164] (Fulmer et al., 2008)

investment without assurances that the country itself will reap substantial dividends.[165]

The new mining code was also, and currently still is, widely criticized for containing weak environmental regulations.[166] Of primary concern are the regulations relating to environmental impact studies. Although the law requires that mining companies present an environmental impact study to the Guatemalan National Commission on the Environment, there are no specific instructions or regulations as to what the study must contain. Instead, it is the responsibility of the company in question to draft what they consider to be an adequate report.[167] Of further concern is the fact that the National Commission on the Environment is given only 30 days to review and approve the study. There are no provisions to extend this time period, and if a case has not been resolved in the 30-day period approval is automatically granted. Environmental experts and industry leaders have asserted that 30 days is an unreasonably short amount of time to properly conduct a review in sufficient detail, particularly considering that the National Commission is both underfunded and operating under capacity.[168]

In addition to weak environmental regulation in Guatemala's written law, enforcement of existing regulations is also problematic. While the National Commission on Environment is responsible for providing adequate control, monitoring and enforcement mechanisms, a lack of funding and trained personnel has made implementing such mechanisms virtually impossible.[169] Moreover, even in cases where the National Commission enforces regulations, the Guatemalan Government has failed to hold guilty companies to the appropriate penalties. In 2003 for example, the Guatemalan government ordered Duke Energy to close its electric plant because of

[165] (Fulmer et al., 2008)
[166] (Fulmer et al., 2008)
[167] (Fulmer et al., 2008)
[168] (Fulmer et al., 2008)
[169] (Tufts University Global Development and Environment Institute, 2012)

high levels of noise pollution. Duke chose to ignore the order and the plant continues to operate.[170] Even more problematic are issues where the government of Guatemala ignores the rulings of the National Commission on the Environment. For instance, the Mayan Biosphere in the northern jungle of Guatemala was recently been declared a protected area. However, depending on the environmental impacts, foreign companies have been able to obtain approval for projects, which exploit this environmentally diverse area. Although conservation plans have been put in place, approval for projects is considered easy to acquire.[171]

In recent years, environmental issues in Guatemala have begun to be taken more seriously by the Guatemalan government. In October 2012, the Ministry of Energy and Mines presented Guatemala's Congress with a proposal of 34 modifications to the current law, which include significant environmental reforms.[172] The Congress has yet to make a decision on whether or not to accept the proposal.[173] While the Government of Guatemala is taking steps in the right direction to improve their environmental regulations, there is evidence that Guatemala has already suffered environmental abuses from foreign-owned mining companies as result of weak regulation over the last 15 years.[174] The most controversial case of such abuses comes from the Canadian owned Marlin Mine, a large gold mine located just outside of Guatemala City. Since 2010, a number of high profile governments and IGO's including the United States Congress, the International Labor Organization, and the Inter-American Commission on Human Rights have called for Marlin Mines suspension, citing environmental damages and public health concerns as the primary reasons.

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170 (Fulmer et al., 2008)
171 (Tufts University Global Development and Environment Institute, 2012)
172 (Reuters, 2013)
173 (Reuters, 2013)
174 (Mine Watch Canada, 2013)

The Marlin Mine Controversy

The Marlin Mine was the first mining project authorized by the Guatemalan government following the passage of a 1997 mining law designed to attract foreign investment. Located 300 kilometers away from the capital Guatemala City in the two towns of San Miguel and Sipacapa, the Marlin Mine is an open-pit and underground gold mine owned by Canadian mining giant Goldcorp. Between the years 2006 and 2009, the Marlin Mine made an economic contribution of over 375 Million USD to the Guatemalan economy, which represented approximately 41% of the mine's revenue over the same time period.[175]

In recent years, the Marlin Mine has become highly controversial for the alleged environmental damages it has caused in Guatemala. As a gold mine, the Marlin Mine presents unique environmental threats to its surrounding area. The most acute of these threats is cyanide contamination.[176] Gold mining involves using a cyanide solution to extract gold from its ore. During this process, cyanide solution is poured on pulverized ore, with the gold-bearing solution then processed in a refinery and smelted to produce gold bars. The remaining water solution is drained into a tailings pond and stored on site. If not managed correctly, however, cyanide solution can leak or be directly discharged into local waterways.[177] This is a major concern since cyanide is acutely toxic to humans and wildlife. Exposure to small doses of cyanide can cause severe pain, burns, and deep ulcers that heal slowly. Exposure to higher doses can be deadly.[178] Another concern with gold mines is contamination from heavy metals. Among the "highly toxic"

[175] (Fulmer et al., 2008)
[176] (Tufts University Global Development and Environment Institute, 2012)
[177] (Tufts University Global Development and Environment Institute, 2012)
[178] (Tufts University Global Development and Environment Institute, 2012)

metals found in rock near the Marlin mine are arsenic, cadmium and lead.[179] These chemicals are problematic because their toxicity is extremely long-lived and perhaps irreversible from a practical point of view. For this reason, the potential damage of heavy metal contamination extends far beyond the operational life-span of the Marlin mine. To date several major studies have indicated that both cyanide and heavy metal contamination have likely occurred as a result of the Marlin Mine. In 2010, an environmental health study by experts from the University of Michigan, University of Illinois, and Physicians for Human Rights indicated several metals such as aluminum, manganese and cobalt were found at elevated levels in the river water and sediment sites directly below the mine when compared to sites elsewhere.[180] In addition, individuals residing closest to the mine, generally communities adjacent to or downstream from the mine, had higher levels of certain metals — urinary mercury, copper, arsenic, zinc — when compared to those living further away.[181] Also in 2010, independent consultant E-Tech indicated that although more information is needed, the existing data suggest that tailings seepage may be migrating to the drainage downstream of the tailings dam.[182] Additionally, water stored in the tailings impoundment exceeds IFC effluent guidelines for pH, cyanide, copper, and mercury. Maximum concentrations of cyanide, copper, and mercury measured in 2006 were over three, ten, and 20 times IFC guidelines, respectively.[183] In 2012, Tufts University Global Development and Environment Institute carried out a cost benefit analysis on the Marlin Mine, concluding that while the bulk of revenues and earnings "flow overseas to the company and its shareholders", local communities in Guatemala "bear 100 percent of environmental risk." As a result, the

[179] (Tufts University Global Development and Environment Institute, 2012)
[180] (Physicians for Human Rights, 2010)
[181] (Physicians for Human Rights, 2010)
[182] (E-Tech International, 2010)
[183] (E-Tech International, 2010)

"economic benefits of the mine to Guatemala and especially to local communities... are meager and short-lived."[184]

The Marlin Mine and Environmental Regulations

Many of the allegations over the environmental abuses by the Marlin Mine point towards deficiencies in the project's Environmental and Social Impact Study. In particular, serious issues were noted in the Marlin Mine's Water Management Plan and Mine Closure Plan.

Water Management Plan

According to a 2010 report by an independent consultant, E-Tech, the Marlin Mine's Water Management Plan was found to have a number of serious deficiencies.[185] For starters, The EIA&S provided limited information on the baseline environmental setting in and around the Marlin Mine. The baseline water quality monitoring period was too short (only 8 to 9 months) to evaluate seasonal and inter-annual changes in water quality before mining began, and the sample size for groundwater quality was much too small. In order to produce accurate results, more monitoring locations and a longer period of baseline analysis should have been conducted for water quality, water quantity and levels, and the abundance and health of aquatic biota. Another concern was raised over the lack of baseline information on the extent of hydrologic connection between aquifers and surface water, or the directions of groundwater flow. Without information on groundwater flow directions, it is impossible to know the potential for the migration of contaminants from mine sources to receptors.[186]

Further concerns over the Marlin Mine's Water Management Plan revolved over

[184] (Tufts University Global Development and Environment Institute, 2012)
[185] (E-Tech International, 2010)
[186] (E-Tech International, 2010)

geochemical testing. According to E-Tech, essentially no information on geochemical testing was included in the main body of the EIA&S.[187] While The EIA&S predicted that the acid generation and contaminant leaching potential of the rocks would be low, no supporting tables or figures were provided. Contrary to these predictions, E-Tech's study actually indicated that the mine wastes have a moderate to high potential to generate acid and leach contaminants to the environment. According to their results, nearly half of the waste rock is potentially acid generating, and an additional 25 to 35% has uncertain acid-generation potential. Wastes with higher acid generation potential will release higher concentrations of metals and pose a greater risk to water resources.[188]

Mine Closure Plan

In response to the controversy that broke out over the Marlin Mine, Goldcorp commissioned its own Human Rights Assessment (HRA) in 2010. Amongst other thing, the findings of the HRA indicated that Goldcorp's plans for mine closure was "the weakest aspect" of the management of the Marlin mine and "has the potential to leave the community vulnerable to long-term impacts on human rights and the environment".[189] According to the HRA, there were several major defects with Goldcorp's closure plan. First, the mine closure plan's closure period it too short. While standard practice calls for a closing period of 2-3 years, the closure period for the Marlin Mine is only 18 months.[190] Second, there are no provisions for long-term monitoring and maintenance in the current mine closure plan. The time period for post-closure monitoring and management is very short when there should be "a provision for continued care

[187] (E-Tech International, 2010)
[188] (E-Tech International, 2010)
[189] (On Common Ground Consultants, 2010)
[190] (On Common Ground Consultants, 2010)

and maintenance of the facilities for a very long time, often defined as 100+ years".[191] Such activities include annual dam inspections, monitoring and treatment of impacted waters until they meet discharge criteria, monitoring and maintenance of tailings pond and waste rock piles, etc. Third, the cost estimate of the current mine closure plan is too low. The full estimated closure cost of $13.6 million is very low. Besides the absence of long-term monitoring and maintenance costs, the costs of revegetation are low compared to norms.[192] Finally, the current mine closure plan comes with no financial assurance. The only resources available to close the mine in the event of failure for any reason is a $1 million fund voluntarily established by Goldcorp. Standard good practice for international companies, however, typically involves assurance vehicles such as security bonds, performance bonds, industrial insurance or letters of credit. None of these assurance vehicles are part of Marlin Mine's current mine closure plan.[193]

The future of the Guatemalan Mining Industry

In July 2013, Guatemala's President called on Congress to impose a two-year moratorium on new metal-mining licenses. Citing environmental damages associated with foreign-based mining companies, the President explained that the Government of Guatemala has not been able to, and continues to be unable to, effectively regulate mining operations within the country, and as a result must freeze new mining licenses until the issue is addressed.[194] While a two-year moratorium on new metal-mining licenses will help prevent further short-term environmental abuses, and will allow the Government of Guatemala to improve environmental regulations, this decision has regarded as a worst-case scenario option. The moratorium will

[191] (On Common Ground Consultants, 2010)
[192] (On Common Ground Consultants, 2010)
[193] (On Common Ground Consultants, 2010)
[194] (Reuters, 2013)

come with significant economic losses to Guatemala, an already impoverished nation, and will shut Canadian countries out of a very resource abundant area. Furthermore, a two-year moratorium on metal-mining licenses is not a long-term solution to Guatemala's mining issues unless substantial change is made to both written regulations, and the way regulations are enforced within the country. Based on the country's prior experience with regulatory reform, and the current state of its environmental regulations, the government of Guatemala has a tough task ahead.

Chapter 4 – The Governance Gap Debate

Overview

Up to this point, this research paper has examined the transnational regulatory regime controlling the Canadian mining industry and the effect the governance gap can have on countries with weak national environmental regulations. Both the Canadian Mining Industry as well as the government of Canada has acknowledged that environmental abuses by Canadian mining companies abroad must be addressed. Both parties, however, have strongly opposed implementing any type of binding regulations on mining companies abroad. The Canadian mining industry argues that binding regulations are both unnecessary and damaging to Canada's dominant position in the global mining marketplace. The Canadian government has been hesitant to accept binding regulations in fears of violating the sovereignty of host-nations. The purpose of this chapter, then, is to examine and evaluate the arguments of the Canadian Mining Industry and the Government of Canada. What comes from the evaluation of these arguments is that many of the claims put forward by both the Canadian Mining Industry and the Government of Canada are either not backed up by empirical or theoretical evidence, or in some cases are even contradictory to empirical and theoretical evidence. The chapter begins with a brief history of the current debate over the governance gap in the Canadian Mining Industry, and then moves into evaluating the arguments against applying binding regulations to Canadian Mining companies operating abroad.

A Short History of the Governance Gap in the Canadian Mining Industry

For over a decade, the federal government of Canada has struggled with the question of how best to regulate the behavior of Canadian mining firms abroad. Sparked by allegations in the

early 2000s that Calgary-based Talisman Energy was complicit in environmental and human rights abuses in Sudan, pressure began to mount for stronger laws that hold firms accountable for their actions abroad.[195] While the then-liberal government acknowledged that the regulatory tools at its disposal were inadequate, what new tools were needed was a topic of fierce debate. While those pushing for stronger laws argued that voluntary self-regulation was not enough to hold firms accountable for abuses abroad, mining firms argued that binding laws would be difficult to comply with and would place them at a competitive disadvantage in the global market.[196] The federal government also had concerns that binding regulations on companies operating abroad would infringe upon the sovereignty of host-nation governments.[197]

In 2007, it appeared as if progress had been made in the debate over how to best regulate Canadian Mining companies abroad. Based on the findings of a 2005 report from the Standing Committee on Foreign Affairs and International Trade (SCFAIT), the then-Liberal government asked an advisory group drawn from industry, labor, non-governmental organizations, academe and the legal profession to conduct national consultations and produce a consensus report. The recommendations that this consensus report produced represented a hard-won compromise. The report, entitled the SCFAIT Final Report, recommended the government develop binding regulations through standards and a reporting mechanism for companies on their economic, environmental and social performance abroad, set up an independent ombudsman to advise Canadian firms and to investigate complaints against them, and establish a tripartite review committee to follow up on the ombudsman's findings and determine an appropriate response.[198] In cases of serious and continuing non-compliance, the report recommended that government

[195] (Drohan, 2010)
[196] (Drohan, 2010)
[197] (Drohan, 2010)
[198] (Drohan, 2010)

support be withdrawn from the offending company.[199]

If the government had accepted the recommendations of this consensus report, a compromise between industry and civil society groups, the debate over how to regulate Canadian mining companies abroad would likely have ended there.[200] In March of 2009, however, the newly elected conservative government responded to the report by rejecting the idea of binding Canadian standards, an independent ombudsman, a tripartite review committee, or any threat of withdrawing of government support. Instead it set up a new counselor, answerable to the minister of international trade, to advise companies and to investigate complaints if all parties to the complaint agreed. While the government did accept some of the consensus recommendations, by ignoring the main provisions of the consensus report, the government rekindled the decade-old debate and eroded support in the mining community for the compromise position.[201]

With the rejection of the consensus reports, Private Member Bills became the primary mechanism used to changed government policy regarding mining regulations. Most notable of these bills was Bill C-300 - the *Corporate Accountability of Mining, Oil and Gas Corporations in Developing Countries Act.* Put forward by Liberal Member of Parliament (MP) John McKay, Bill C-300 calls on the ministers of foreign affairs and of trade to set out guidelines for economic, environmental and social performance of Canadian firms operating abroad, to accept and investigate complaints that firms have contravened these guidelines, and to withdraw consular support, funding by Export Development Canada and investment by the Canadian Pension Plan Investment Board when a company is found in non-compliance.[202] While Bill C-

[199] (Drohan, 2010)
[200] (Drohan, 2010)
[201] (Drohan, 2010)
[202] (Parliament of Canada, 2010)

300 was not as comprehensive as the recommendations made in the consensus report, the Bill was viewed as the best chance to tighten Canadian oversight on Canadian mining companies abroad.[203]

While Bill C-300 gathered a great deal of support from National and International NGOs, Members of Parliament, and non-profits, the Bill was never passed. In November 2010, by a vote of 140 to 134, the House of Commons defeated Bill C-300.[204] As it presently stands, no other Private Member Bills have been put forward in an attempt to reform regulations for mining companies operating abroad, and the debate over how such reform should take shape continues on. [205]

Although no other Private Member Bills have been put forward since Bill C-300's defeat, the debate over how to regulate Canadian Mining Companies abroad has continued on. While those in favor of applying binding regulations abroad point to a growing body of empirical evidence indicating that Canadian Mining companies are committing environmental abuses in host-countries with weak environmental regulations, the Canadian Mining Industry and the Government of Canada have dug in to their stance that binding regulations are not the solution. However, as the years go by, the arguments of the Canadian Mining Industry and the Government of Canada grow weaker. There is now ample evidence that indicates that the arguments by these two groups are either outdated, unfounded, or contradictory to empirical evidence. The merits of these arguments will now be further examined.

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[203] (Drohan, 2010)
[204] (Prospectors and Developers Association of Canada, 2010)
[205] (Prospectors and Developers Association of Canada, 2010)

Position of the Prospectors and Developers Associations of Canada

Throughout the debate over how to best regulate Canadian Mining companies abroad, the position of the Canadian Mining Industry has largely been represented by the Prospectors and Developers Associations of Canada.[206] Established in 1932, PDAC exists to "protect and promote the interests of the Canadian mineral exploration sector and to ensure a robust mining industry in Canada", and is made up of over 1,000 corporate and 6,000 individual members, comprising mining companies, junior exploration companies, service and consulting firms, executives, geoscientists, prospectors, government representatives, lawyers, accountants and the financial and investment sectors.[207] Since the outset of the debate, The Prospectors and Developers Association of Canada has always been against increasing regulations for mining companies operating abroad. While The PDAC has agreed that corporate accountability and the continuous improvement of the CSR performance of Canadian mining companies abroad should be made a priority, the association holds strongly the position that adequate measures are already being taken by the Canadian government and by the exploration industry itself to get there faster and in a more substantial way.[208]

The Prospectors and Developers Association of Canada has been highly vocal in their criticism of increasing regulations on Canadian Mining Companies operating abroad. In response to Bill C-300, the association consolidated these criticisms into a statement outlining 13 reasons why Bill C-300 will hurt Canadian Mining.[209] The overall sentiments of these arguments can be broken down into two main arguments. First, PDAC argues that there is no need for tighter

[206] (Prospectors and Developers Association of Canada, 2009)
[207] (Prospectors and Developers Association of Canada, 2009)
[208] (Prospectors and Developers Association of Canada, 2009)
[209] (Prospectors and Developers Association of Canada, 2010)

regulations, as voluntary Corporate Social Responsibility initiatives are proving highly effective at regulating mining companies abroad.[210] According to PDAC, Canada is recognized internationally as a global leader in Corporate Social Responsibility and its companies are preferred investors all over the world.[211] While PDAC has agreed that there is always room for improvement, the Association sees improvements to CSR policies as a better solution than increased regulations.[212] PDAC argues that CSR provides better flexibility to the complex situations that arise abroad, and address the root of the problem, unlike regulations that are primarily to assign blame. To highlight its commitment to progressing CSR, PDAC emphasizes its participation in the Canadian Roundtable Conference on CSR in the Canadian mining industry.[213] PDAC's second argument against increased binding regulations is that such regulations would harm Canadian mining companies' position in the global market place. PDAC argues that since no other OECD country imposes such measures on its extractive sector, that Canadian companies will be put at a competitive disadvantage in the global market place if binding regulations are applied.[214] This would have one of two different consequences PDAC warns. The first of these consequences could be that Canadian mining companies headquartered in Canada would leave the country, and headquarter themselves in another country with more favorable regulations.[215] The second consequence could be that Canadian mining companies choose to stay headquartered in Canada, and as a result face economic loses because of tighter regulations.[216] Economic losses would occur for a number of reasons, PDAC argues. PDAC

[210] (Prospectors and Developers Association of Canada, 2010)
[211] (Prospectors and Developers Association of Canada, 2010)
[212] (Prospectors and Developers Association of Canada, 2010)
[213] (Prospectors and Developers Association of Canada, 2009)
[214] (Prospectors and Developers Association of Canada, 2010)
[215] (Bourassa, 2009)
[216] (Bourassa, 2009)

argues that binding regulations amount to a loss of faith in the Canadian Mining industry. If the government of Canada were to increase such regulations, it would amount to admitting that Canadian mining firms were guilty of committing environmental abuses abroad, and as such would damage the reputation of the Canadian Mining industry. This loss of faith, PDAC argues, would also damage the relationship between Canadian Mining companies and host governments, who would become more skeptical of Canadian Mining Companies. This reputational damage would come with economic losses.[217] PDAC also argues that if binding regulations were placed on Canadian mining companies, then anyone with a grievance against a company could file a complaint that the government would have to investigate. PDAC argues that such investigations would come at a significant cost to the company in question, and that regardless of the outcome of an investigation, the reputation of the industry and the company would immediately come under suspicion.[218] Whether mining companies move their headquarters elsewhere, or stay in Canada and suffer economic losses amounts to the same result, PDAC argues. If binding regulations are placed on Canadian mining companies abroad, then the Canadian mining industry will lose its position as a leader in the global mining industry.

Evaluating the Position of the Prospectors and Developers Association of Canada

While the Prospectors and Developers Association of Canada has been very vocal about its position against increased regulations, many of their arguments have been criticized as being fundamentally flawed. These criticisms will now be examined.

[217] (Prospectors and Developers Association of Canada, 2010)
[218] (Bourassa, 2009)

Claim 1 – CSR has been sufficient to prevent environmental abuses abroad, and remains the best strategy to monitor Canadian mining companies operating abroad.

PDAC claims that there is no need for binding regulations on Canadian mining companies abroad, as voluntary Corporate Social Responsibility (CSR) initiatives are proving highly effective at regulating such companies. This claim, however, suffers from a lack of empirical evidence. In 2009, PDAC commissioned a study to examine how Canadian mining companies were behaving abroad. Completed by the Canadian Center for Resource Conflict, the report found that Canadian companies have been the most significant group involved in unfortunate environmental incidents in the developing world, and Canadian companies have played a much more major role than their peers from Australia, the United Kingdom and the United States in these incidents.[219] The proportion of incidents globally that involve Canadian corporations is very large, according to the report. "Of the 171 companies identified in incidents involving mining and exploration companies over the past 10 years, 34 per cent are Canadian," the Centre found.[220] The report went on to further note that while the high incidence of involvement of Canadian companies is in line with the Canadian industry's dominant position in global mining and exploration, having a dominant position "does not make the individual or corporate violations any more ethically acceptable, especially considering the efforts in recent years taken by industry and government to improve the practices of the Canadian industry.[221] The report notes that the Canadian government and the industry have devoted considerable time and money to instilling principles of corporate social responsibility in the mining sector, but when one examines the current empirical reality, the results reveal a less than ideal picture of

[219] (Canadian Center for Resource Conflict, 2010)
[220] (Canadian Center for Resource Conflict, 2010)
[221] (Canadian Center for Resource Conflict, 2010)

corporate social responsibility in the Canadian extractive sector.[222] "Clearly, the Canadian mining and exploration community needs to shift its current strategy if it is to improve its relationships with communities, governments, civil society and risk mitigation."[223] PDAC's position was also damaged by the fact the Canadian Centre fro Resource Conflict report was never officially released - and instead was leaked.[224] In an attempt to save face, PDAC released a statement that the report had not been fully finished, and that more research was necessary before it was to be officially released.[225]

In addition to challenges on an empirical basis, the merits of current CSR initiatives in the Canadian Mining Industry have also been challenged on a theoretical basis. According to Professors Julia Sagebien and Nicole Marie Lindsay, two experts on CSR in the Canadian mining industry, current models of CSR in the Canadian mining industry are fundamentally flawed.[226] Sagebien and Lindsay argue that CSR as currently conceptualized cannot be expected to bring about the long-term, transformative change needed to address multi-actor, system-wide issues.[227] This is largely due to 4 main disconnects between the intent of CSR, and the actual practicing of CSR. These disconnects are as follows: (1) The short-term orientation on which both companies and financial markets operate and the long-term societal issues that short-term thinking creates; (2) an overly narrow focus on corporate citizenship as explicitly doing good for shareholders, while ignoring other effects of company behavior; (3) the gap between rhetoric and reality of many companies' corporate citizenship; and (4) the reality that most corporate

[222] (Canadian Center for Resource Conflict, 2010)
[223] (Canadian Center for Resource Conflict, 2010)
[224] (Whittington, 2010)
[225] (Whittington, 2010)
[226] (Sagebien & Lindsay, 2011)
[227] (Sagebien & Lindsay, 2011)

citizenship agendas, even when quite broadly stated, fail to deal with the significant risks, impacts, and practices of companies that result from their business models.[228] It has also been argued that as an emerging order of discourse, CSR policy and practice has largely been shaped by a political economic context in which neoliberalism forms the dominant economic imaginary.[229] This has meant that current CSR initiatives are simply a product, and further extension, of the very industries they are attempting to shape. Through a process of selection, retention, reinforcement, and inculcation, Lindsay argues, emerging global norms regarding the business–society relationship have been taken up and institutionalized by industry associations and corporations.[230] The result of this is that CSR initiatives are "unlikely, in their present form, to address the core conflicts and contradictions that they have ostensibly been developed to ameliorate."[231]

Claim 2 – Applying binding regulations to Canadian mining companies will give these companies a competitive disadvantage in the global market.

The relationship between environmental regulations and competitive advantage in the global market has been well studied by economic theorists. While the Prospectors and Developers Association of Canada claims that increased environmental regulations on Canadian mining companies operating abroad will result in giving these companies a competitive disadvantage, there is a large body of evidence that indicates that increased regulation does not necessarily automatically result in economic harm to a firm – and in many cases may actually lead to economic benefits for firms.

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228 (Sagebien & Lindsay, 2011)
229 (Lindsay, 2011)
230 (Lindsay, 2011)
231 (Lindsay, 2011)

The traditional view among economists and managers concerning environmental protection is that it comes at an additional cost imposed on firms, which may erode their global competitiveness. Environmental regulations such as technological standards, environmental taxes, or tradable emissions permits force firms to allocate some inputs (labor, capital) to pollution reduction, which is unproductive from a business perspective. Technological standards restrict the choice of technologies or inputs in the production process. Taxes and tradable permits charge firms for their emissions pollution, a by-product of the production process that was free before. These fees necessarily divert capital away from productive investments.[232] Over the last decade, this view has been challenged as outdated and contrary to empirical evidence. One of the most notable challengers of the traditional paradigm is Michael Porter, Professor of Strategic Management at Harvard University. In a 1991 article, and again in a 1995 article with co-author Class van der Linder, Porter suggested that pollution is often a waste of resources and that a reduction in pollution may lead to an improvement in the productivity with which resources are used. More stringent but properly designed environmental regulations (in particular, market-based instrument such as taxes or cap-and-trade emissions allowances) can "trigger innovation [broadly defined] that may partially or more than fully offset the costs of complying with them" in some instances.[233] The idea that tighter environmental regulations can be linked with improved firm performance has since been referred to as the Porter Hypothesis. While the Porter Hypothesis was initially met with skepticism, empirical evidence supporting the hypothesis has accumulated over the last 20 years.[234] Current analyses of the Porter Hypothesis now indicate that the theoretical arguments that could justify the PH are now more solid than they appeared at

[232] (Ambec et al., 2011)
[233] (Porter, 1991) (Porter & Van der Linder, 1995)
[234] (Ambec et al., 2011)

first, and that evidence that stricter regulation leads to more innovation is also fairly well established.[235] Coming back to applying stricter environmental regulations on Canadian mining companies abroad, the Porter Hypothesis then suggests that stricter regulation could in fact come with benefits to these companies. If this is the case, Canadian mining firms and the Canadian government could benefit from taking the time to develop regulations that would help promote innovation while at the same time addressing the concerns over environmental abuses abroad.

Studies also indicate that there should be no fear that stricter environmental regulations will cause companies to re-locate to countries with more lax regulations.[236] One important reason is that for all but a handful of industries, the costs of compliance with stricter regulatory standards have not been sufficient to force multinational companies to choose between competitiveness and environmental protection.[237] In marked contrast to labor costs, the overall costs of compliance with environmental regulations have been modest. According to Martin Houldin, the environmental director at the consulting firm KPMG Peat Marwick in London, 'The international differences in the cost of labor are generally so much more important that the environment pales into insignificance.' This is not to say that costs are non-existent: many expenditures to improve environmental quality do reduce output and lower the rate of productivity growth.[238] But in the aggregate, increases in national levels of pollution-control expenditures have had little effect on the growth of economic output from a firm. The Organization for Economic Co-operation and Development (OECD) confirms such findings, indicating that 'very little evidence exists of firms being transferred abroad in order to escape the

[235] (Ambec et al., 2011)
[236] (Vogel, 1997)
[237] (Vogel, 1997)
[238] (Vogel, 1997)

more stringent environmental regulations at home mostly because pollution control expenditures are generally not a large enough share of total costs to make it worth a company's while to relocate.[239]

With regard to PDAC's argument that increased regulation will damage the reputation of Canadian Mining industry, there is again no empirical evidence to back this claim up. In contrast, studies indicate that more stringent environmental regulations may enhance the reputation of the Canadian mining industry abroad. The traditional perspective is that any corporate funds spent on enhancing environmental performance beyond minimum compliance are detrimental to the firm's objective of stakeholder wealth maximization.[240] However, there is a growing body of evidence that suggests that enhancing environmental performance is both socially responsible, rational, and builds a firm's reputational advantage.[241] Good management theory suggests that firms that have competent and innovative management will tend to seek out emerging sources of competitive advantage such as environmental marketing to better satisfy customers and other stakeholders and ultimately enhance shareholder value.[242] In other words, good managers are constantly in search of ways to enhance their firm's competitive power, and these managers see the realization of superior environmental performance as a distinct layer of advantage that intensifies their competitive power.

Position of the Government of Canada

In the 2009 Government response to the Standing Committee on Foreign Affairs and

[239] (OECD, 2012)
[240] (Miles & Covin, 2000)
[241] (Ambec et al., 2011)
[242] (Miles & Covin, 2000)

International Trade's report on regulation in the Canadian mining industry, the Government of Canada stated that Canadian law does not generally provide for "extraterritorial application", and that to do so could raise several problems including "conflict with the sovereignty of foreign states; conflicts where states have legislation that differs from that of Canada; and difficulties with Canadian officials taking enforcement action in foreign states."[243] Given these concerns, the Government rejected the Committee's recommendations to apply binding regulations on Canadian mining companies operating abroad.[244] The government did, however, embrace the idea of holding a multi-stakeholder public consultation on the problems of Canadian mining companies operating in developing countries. The proposed outcome of the process was broadened to a commitment to providing the SCFAIT with a report presenting recommendations for not only the Canadian government, but also "NGOs, labor organizations, business and industry associations." In essence, the government committed to participating in a process in which its role was equal to that of other stakeholders, rather than acknowledging that as a state, the government of Canada possesses the authority - and has a responsibility - to govern in the public interest.[245] While the Government of Canada has been hesitant to accept binding regulations on Canadian mining companies abroad on the basis of respecting the sovereignty of host-nations, there is plenty of literature suggesting that not only is it possible for the Canadian government to both regulate these companies and respect host-governments, but also that it is the responsibility of the Canadian government to prevent Canadian mining companies from committing environmental abuses abroad.

There are several major arguments against the current stance of the Canadian

[243] (Seck, 2008)
[244] (Seck, 2008)
[245] (Seck, 2008)

Government regarding the application of binding regulations on Canadian mining companies operating abroad. The first of these arguments is simply that regulations on Canadian companies abroad need not be considered a violation of host-country sovereignty, and instead be viewed as complementary to the regulatory framework of host-nations. Seck explains that concurrent or overlapping jurisdiction arises when more than one state regulates the same transnational conduct in accordance with established jurisdictional principles. In a transnational world, incidents of concurrent jurisdiction are not unusual. Indeed they are quite normal, even commonplace.[246] Concurrent jurisdiction can cause problems in some cases, however. Objections to jurisdiction may arise where one state perceives the assumption of jurisdiction by a second state as involving unwarranted interference in matters which have little or nothing to do with that second state and are more properly the concern of the first state. This unwarranted interference is generally thought of as contravening the fundamental international law principle of non-intervention or non- interference, which is breached "by an assertion of jurisdiction which interferes with another state's political, economic, social or cultural system."[247] In cases of regulating Canadian mining companies abroad, however, such regulations need not contradict or challenge the jurisdiction of host countries. Instead, regulations would conform to global norms of environmental stewardship, which would act complementary to the regulations of host countries.[248] Such complementary regulations are very much welcomed by many host governments, evidence suggests.[249] In situations where national governments are unable to properly enforce their own environmental regulations, home-state interventions provide a welcomed regulatory safety net.

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[246] (Seck, 2008)
[247] (Seck, 2008)
[248] (Hannum, 1996)
[249] (Mining Watch Canada, 2010)

Another argument against the current stance of the Canadian Government regarding the application of binding regulations on Canadian mining companies operating abroad comes from Susan Mark's principle of democratic inclusion. Mark's principle of democratic inclusion suggests that democratic governance shift away from being territorially bound, and towards including all parties that have a stake or are included in a particular regulatory matter.[250] Mark's argues that the conventional approach to democratic theory is to view the nation-state as a site of democracy with state boundaries as its limit. Under this conception, the people or demos are conceived of as the nation, and legitimacy is defined in terms of "consent by and accountability to the national citizenry."[251] Underpinning this view is an assumption that "democratic polities are territorially bounded communities."[252] However, the challenge of globalization suggests that the "nation-state cannot remain democracy's container" and consideration must be given to the democratization of global governance.[253] This implies that "decision-making with global or transboundary impact-whether undertaken by governments ... multinational corporations, or other actors- must be brought within the scope of democratic concern."[254] Under the principle of democratic inclusion, binding regulations for Canadian mining companies abroad would not be viewed as an infringement of host-nation sovereignty, but instead seen as a way to provide representation to host nations and effected communities in matters of environmental concern.

In addition to arguments suggesting that binding regulations on Canadian mining companies operating abroad would not violate host-nation sovereignty, there have also been arguments put forward that the Government of Canada is obligated to regulate the environmental

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[250] (Seck, 2008)
[251] (Marks, 2000)
[252] (Marks, 2000)
[253] (Marks, 2000)
[254] (Marks, 2000)

practices of Canadian mining companies operating abroad. Through its commitment to multilateral environmental agreements such as the Rio Declaration on Environment and Development, Agenda 21, and the Johannesburg Plan of Implementation, the Government of Canada has endorsed what Sara Seck calls the three "pillars" of public participation rights.[255] The pillars are access to information, access to public participation in decision-making, and access to justice in environmental matters.[256] Under the United Nation's Declaration on the Right to Development, Seck argues that the Canadian Government would not only have proper grounds to ensure that the three pillars of public participation were enforced abroad, but also that the Canadian Government has the obligation to ensure this. As per Seck:

> Having established that the three pillars of public participation have support in sources of international law of significance to global mining, the question remains as to whether home states are obligated to ensure that the participation rights of local communities in host states are respected. The Declaration on the Right to Development is potentially helpful in this regard, for Article **2(3)** formulates the right as both a right and duty of states, with the state holding the right as an agent for the individuals and the entire population. This suggests that the state right to development must be exercisable against outside actors, including conceivably a home state. 36 Moreover, states have the duty "individually and collectively" to facilitate the full realization of the right to development in the formation of development policies, while states must also take steps to eliminate obstacles to development resulting from the failure to observe other human rights.137 Taken together, it is clearly possible to argue that home states as well as host states must ensure that the three pillars of rights of participation in development are fully protected.[257]

The view that the Canadian government has an obligation to regulate Canadian mining companies operating abroad is supported by John Ruggie, the former UN secretary general's special representative on business and human rights. According to Ruggie:

> [The State's duty to protect] has both legal and policy dimensions. As documented in the Special Representative's 2007 report, international law provides that States have a duty to protect against [human rights and environmental abuses] by non-State actors, including by

[255] (Seck, 2008)
[256] (Seck, 2008)
[257] (Seck, 2008)

business, affecting persons within their territory or jurisdiction. To help States interpret how this duty applies under the core United Nations human rights conventions, the treaty monitoring bodies generally recommend that States take all necessary steps to protect against such abuse, including to prevent, investigate, and punish the abuse, and to provide access to redress.[258] States have discretion to decide what measures to take, but the treaty bodies indicate that both regulation and adjudication of corporate activities vis-à-vis human rights are appropriate. They also suggest that the duty applies to the activities of all types of businesses - national and transnational, large and small - and that it applies to all rights private parties are capable of impairing. [259]

[259] (Ruggie, 2008)

Chapter 5 – Future Scenarios

Overview

This paper has provided an overview of the transnational environmental regulatory regime that governs Canadian mining companies abroad, illustrated how the governance gap that can emerge from this framework may be harmful to host-nations where Canadian firms operate, and argued that the position of the Canadian mining industry and the Government of Canada against applying binding regulations to Canadian mining companies abroad is weak, and in some cases completely unfounded. In this final chapter, the future of the debate over the governance gap in the Canadian mining industry will be examined. At the present time, very little has changed since it was determined 10 years ago that the current regulatory tools at the government's disposal were inadequate for regulating mining companies abroad. Proponents of regulatory reform are still calling for binding regulation, while the Government of Canada and the Canadian mining industry views Corporate Social Responsibility initiatives as the best response to preventing environmental abuses abroad. In this chapter, two different scenarios are examined – a scenario where proponents of regulatory reform are victorious in the governance gap debate, and a scenario where the Canadian mining industry and the current stance of the Canadian Government is victorious. In both scenarios, different possible regulatory responses to the governance gap will be examined.

Scenario 1 – Binding regulations are applied to Canadian mining companies abroad

In discussing a scenario in which binding environmental regulations are applied to Canadian mining companies operating abroad, it is important to begin by explaining that no

other national government has implemented such regulations, and as such there are no "policy trails" that the government of Canada might follow. [260] This is not to say other countries have not tried, however. In 2000 and 2001, the Australian Parliamentary Joint Statutory Committee on Corporations and Securities held hearings to determine whether to enact a proposed Corporate Code of Conduct Bill 2000 ("Bill 2000"). The object of Bill 2000 was to impose environmental, employment, health and safety and human rights standards on the conduct of Australian or related corporations operating in a foreign country.[261] It was brought to the Committee's attention that the purpose of Bill 2000 was not to impose Australian standards on other countries but rather to ensure that Australian and Australian-related companies acted in compliance with fundamental international law principles of human rights and environmental protection. Nevertheless, the Committee concluded that the standards were Australian and could only be interpreted as implying that local standards are inferior.[262] Bill 2000 was then rejected as the legislation would be viewed overseas as "arrogant, patronizing, paternalistic and racist."[263] Similarly, Denmark has debated binding regulations on Danish companies operating abroad. The Government of Denmark now requires large companies and institutional investors to report annually on their social and environmental policies and how they have implemented them. However, the government was unsuccessful at developing enforceable standards to evaluate these reports against.[264] The British government has also implemented similar statutory requirements for businesses listed on the stock exchange, but has also not developed binding

[260] (Drohan, 2010)
[261] (Seck, 2008)
[262] (Seck, 2008)
[263] (Seck, 2008)
[264] (Drohan, 2010)

standards to evaluate corporate environmental reports.[265]

If the proponents of regulatory reform in the Canadian mining industry were to be successful in convincing the Canadian government to apply binding regulations on Canadian mining companies operating abroad, Canada would become a leader and trailblazer in the realm of transnational mining regulation. Under such a scenario, regulations could take various different forms. These forms include regulations based on the nationality principle, the territorial principle, or on binding environmental standards enforced by the Government of Canada.

According to the nationality principle in public international law, States are free to decide who their nationals are, and to "lay down the conditions for a grant of nationality in their own laws."[266] Thus, corporate nationality is determined by each state under its own laws, and state practice diverges. Under the nationality principle, companies that are incorporated in Canada could thus be considered Canadian nationals, subject to Canadian regulations. Under this principle, the Government of Canada could decree Canadian mining companies as Canadian nationals, and thus have the right to govern them under public international law.[267] Regulations on Canadian mining companies operating abroad that are rooted in the nationality principle would thus regard all Canadian mining companies, regardless of where they are operating, as bound to the same environmental regulations that govern companies operating in Canada. These Canadian national regulations were discussed at length in Chapter 2. This form of binding regulation would be viewed as the strictest, and most extreme form of transnational regulation – thus making it unlikely that the Government of Canada and the Canadian Mining Industry would

[265] (Drohan, 2010)
[266] (Seck, 2008)
[267] (Seck, 2008)

actually accept them. In practice, applying this type of regulation may also be quite difficult. Multinational corporations often undergo complicated incorporation processes, which include creating subsidiary companies that may be technically out of regulatory reach under the nationality principle.[268] Despite its complexities, however, the nationality principle still provides a good theoretical argument for the legitimacy of binding regulations on Canadian mining companies abroad.

Another form of binding regulations for Canadian mining companies operating abroad can come from the territorial principle. Under the territorial principle, it would be possible for the Government of Canada to apply binding regulations indirectly through Canadian corporate law or through regulations applying to Canadian banks – thus providing regulation mechanisms that do not infringe upon the affairs of host countries.[269] According to the territorial principle, states may "legislate as they please, on any matter whatsoever, within state territory - subject to duties under international human rights and other similar laws."[270] Under such a principle, legislation mandating environmental requirements on financing decisions made by Export Development Canada (EDC), Canada's export credit agency, would fall within Canadian territorial jurisdiction. Similarly, a decision made in Canada by a Canadian private bank to finance or insure an overseas mining project (or not to finance the project, as the case may be) could be considered an activity that takes place within Canadian territorial jurisdiction. In an analysis of the territoriality of decision-making, there is no distinction between financing by the Canadian government and financing by a private Canadian financial institution. This suggests that, as a preliminary matter, it is *permissible* for a home state government to regulate both its

[268] (Seck, 2008)
[269] (Seck, 2008)
[270] (Seck, 2008)

own export credit agency and private financial institutions that make decisions within its territory.[271] Such regulation through Export Development Canada and private Canadian financial institutions would build upon the conditions attached to financing regulations discussed in Chapter 2 by expanding financing conditions beyond what is necessary to ensure loan repayment, and instead focus on what is required for adequate environmental stewardship. The territorial principle could also apply to certain aspects of corporate law, if the company in question were incorporated in Canada.[272] One such way the territorial principle could regulate companies through corporate law is through shareholder proposals. In *BCE Inc. v. 1976 Debentureholders et al.* (2008), the Supreme Court of Canada (SCC) held that pursuant to the Canada Business Corporations Act (CBCA, 1985), directors are obliged, in the course of meeting their fiduciary duties, to protect the long-term best interests of the corporation and to consider a broad set of stakeholder interests, including those of shareholders, employees, creditors, consumers, government, and the environment.[273] The Court held that directors "need to treat affected stakeholders in a fair manner, commensurate with the corporation's duties as a responsible corporate citizen."[274] Shareholder proposals are mechanisms to ensure that these rights are respected, and to provide legal reprise for when they are not. It is argued that one strategy to regulate mining companies abroad through the territorial principle and corporate law would be to expand the legal definition of shareholders so as to include all affected parties in a matter, including IGOs, NGOs, and affected populations in other countries.[275] Such an expansion of the definition of shareholders would be further supported by Mark's principle of Democratic

[271] (Seck, 2008)
[272] (Seck, 2008)
[273] (Webb, 2011)
[274] (Webb, 2011)
[275] (Webb, 2011)

Inclusion. Under such reforms, all effected parties would have access to legal reprise through shareholder proposals. Applied to the Canadian mining industry, host-nations and affected local populations could be considered shareholders on the basis of being affected by mining operations. As such, they would be entitled to having their interests and well being respected by mining companies, and entitled to submit a shareholder proposal in cases where environmental abuses have been alleged.

A final, and likely the most probable form that future binding regulations for Canadian mining companies operating abroad would be binding environmental standards enforced by the Government of Canada. These types of regulations were suggested by both the Standing Committee on Foreign Affairs and International Trade, and by Bill C-300. Under the SCFAIT final report, it was suggested that the government develop binding regulations through standards and a reporting mechanism for companies on their economic, environmental and social performance abroad, set up an independent ombudsman to advise Canadian firms and to investigate complaints against them, and establish a tripartite review committee to follow up on the ombudsman's findings and determine an appropriate response.[276] Under Bill C-300, it was suggested that the ministers of foreign affairs and of trade to set out guidelines for economic, environmental and social performance of Canadian firms operating abroad, to accept and investigate complaints that firms have contravened these guidelines, and to withdraw consular support, funding by Export Development Canada and investment by the Canadian Pension Plan Investment Board when a company is found in non-compliance.[277] While both the recommendations of the SCFAIT final report and Bill C-300 did not come into effect, this does

[276] (Drohan, 2010)
[277] (Parliament of Canada, 2010)

not mean that there is no future for binding environmental standards. Liberal MP John McKay, for instance, has said that Bill C-300 may yet undergo a "legislative resurrection".[278] McKay explained during the 2011 Political Economy of Mining and Resource Extraction conference at Carleton University that Bill C-300 received positive reactions from national governments around the world including Bulgaria and the Philippines, and that he had received letters from over 80 NGOs that endorsed the bill. He even said that some progressive companies "dipped their toes [into Bill C-300]".[279] McKay also pointed out that on the day of Bill C-300's vote, 24 MPs were absent and the bill was defeated by a mere 6 votes. Furthermore, all of the Conservatives showed up to vote against it. Based on the positive response McKay received from the international community, and the close margin of the Bill's defeat, McKay has vowed to reintroduce Bill C-300 (or a similar type of Bill) after more research and consultation with the Canadian mining industry.[280]

Scenario 2 – Environmental regulation of Canadian mining companies operating abroad is addressed through Corporate Social Responsibility initiatives

A scenario in which the environmental regulation of Canadian mining companies operating abroad is addressed through Corporate Social Responsibility initiatives would largely be keeping with the status quo. Under this scenario, future regulation would be shaped primarily through the Government of Canada's national CSR Strategy - Building the Canadian Advantage: A CSR Strategy for the International Extractive Sector. Under this strategy, the Government of Canada has promised to promote widely recognized international CSR performance guidelines such as the International Finance Corporation's Performance Standards on Social &

[278] (Lui, 2011)
[279] (Lui, 2011)
[280] (Lui, 2011)

Environmental Sustainability, Voluntary Principles on Security and Human Rights for projects involving private or public security forces, and the Global Reporting Initiative.[281] The strategy also plans to set up an Office of the Extractive Sector CSR Counselor to assist stakeholders in the resolution of CSR issues pertaining to the activities of Canadian extractive sector companies abroad, and to encourage the Canadian international extractive sector to implement voluntary performance guidelines by developing and disseminating high-quality CSR information, training and tools.[282]

While this paper has argued that CSR initiatives have not been successful in regulating Canadian mining companies operating abroad, and that CSR initiatives are unlikely to provide adequate future regulation, it is acknowledged that such initiatives are likely going to prevail as the preferred method of regulation in the immediate future. While proponents of regulatory reform have made great strides towards implementing binding regulations on mining companies abroad, such regulations are still a number of years away from being implemented – if they are to be implemented at all. In the meantime, however, if CSR initiatives are to be the main tool for the regulations of Canadian mining companies abroad in the short term, there are ways in which such initiatives can be improved in order to minimize their regulatory shortcomings. Two ways that CSR initiatives can become more effective is if they place a strong focus on capacity building in host-nations, and – more ambitiously – if they adopted a systemic approach to CSR.

Capacity building involves building expertise in developing compliance approaches, knowledge and application of best practices, and resourcing, developing, and institutionalizing

[281] (Foreign Affairs, Trade, and Development Canada, 2009)
[282] (Foreign Affairs, Trade, and Development Canada, 2009)

capacity.[283] Capacity building can be an effective way to help narrow the governance gap in the Canadian mining industry by strengthening the ability of host-nations to implement and enforce their own national regulations. While capacity building does take time, and cannot be considered a solution to adequate regulation in the short term, capacity building does provide long-term benefits to host governments.[284] According to Jan Boon's research in Latin America, capacity building should be attentive to the needs of local communities and host-governments. Boon explains that all levels of host government should build strategic and administrative capabilities and understand CSR and what it can do.[285] District and higher levels of government should ensure communities understand what development is and have realistic expectations of what a mine can deliver. They also should provide cultural preparation for a money economy, pay attention to health, develop meeting and negotiation skills, and seek internal and external expertise. The regional and national host governments should support the development of local qualified personnel to work in the mine.[286] Looking back at the case studies presented in Chapter 2, it is possible to see how capacity building may have helped the situation in Mongolia and Guatemala. In Mongolia, environmental regulation suffered from there being a lack of capacity to develop and effectively enforce environmental regulations, as well poor coordination between existent environmental divisions of the government. Capacity building could have helped with drafting effective laws, as well as helped with training skilled labor to help build capacity within the environmental divisions of the Mongolian Government. Capacity building could have also improved and promoted interactions between Turquoise Hill, the Government of Mongolia, and South Gobi Herders. In Guatemala, capacity building could have similarly helped the

[283] (Boon, 2011)
[284] (Drohan, 2010)
[285] (Boon, 2011)
[286] (Boon, 2011)

Government of Guatemala develop better written laws and enforcement capabilities.

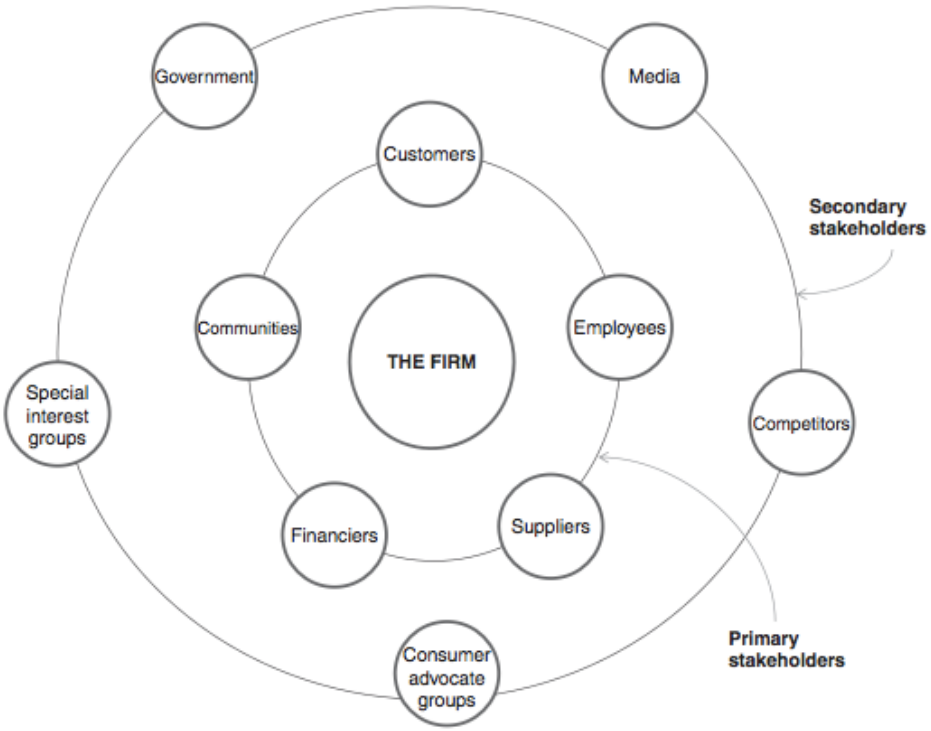
With respect to adopting a systemic approach to CSR, this would involve rethinking the current way CSR initiatives are understood and developed. The traditional model of CSR defines CSR as a set of discretionary or voluntary actions originating within a company as a response to stakeholder pressure or market opportunities and risk.[287] CSR initiatives may vary in their finer details, but they tend to have a number of central elements in common: (1) the firm is at the center of the business–society relationship; (2) entities which interact with the firm and have some impact upon it are conceptualized as 'stakeholders' of either primary or secondary importance; and (3) CSR is used as a 'stakeholder management tool,' the ultimate purpose of which is to add value to the firm.[288] A visual representation of this model is presented in Figure 5. According to Sagebien and Lindsay's research, the traditional model of CSR in the Canadian mining industry is flawed for being overly firm-centric. Sagebien and Lindsay explain that

> "CSR policies and practices directed toward immediate stakeholder groups and in response to local governance gaps, while potentially beneficial to the firm and to its selected stakeholders, possess limited potential to transform the systemic political and economic structures that create the conditions in which inequities and injustices persist, despite the best intentions and efforts of any corporate actor."[289]

In an attempt to address the shortcomings of current thinking about CSR initiatives, Sagebien and Lindsay argue that a systemic model of CSR is needed in order to properly address such concerns.

[287] (Freeman, 1984)
[288] (Sagebien & Lindsay, 2011)
[289] (Sagebien & Lindsay, 2011)

Figure 1 – Traditional Model of CSR Visualized[290]

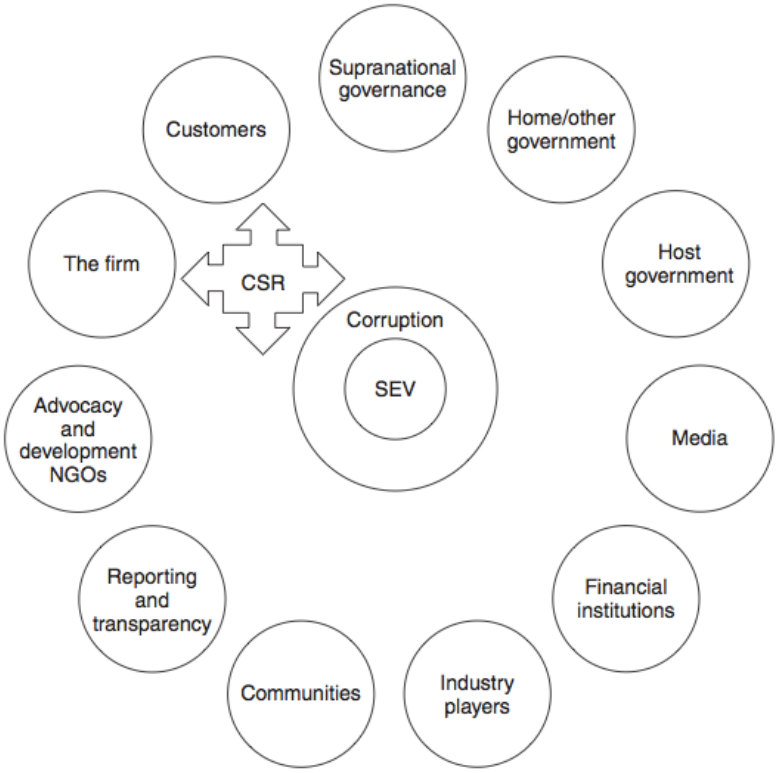


With that in mind, Sagebien and Lindsay propose an alternative model for CSR conceptualization called the Social and Environmental Value Governance Ecosystem (SEVGE) model. The SEVGE model conceptualizes the following (visualized in Figure 6):

> (1) A collectively defined central *goal* as the hub of the system: that is, the creation, enhancement and protection of *social and environmental value*; (2) The firm as just one of many role-bound *actors* embedded in a complex political system of conflicting and/or synergistic interests; (3) CSR programs and strategies as just one of the *mechanisms* available to 'govern' this system, with other mechanisms available to other actors in the *collective governance* of the system; (4) System-wide *relationships* between actors and *interactions* of system dynamics (including actions and inactions) that can either *disable* or *enable* multi-actor, multi-mechanism governance efforts; and finally (5) *Corruption* as a corrosive, system-wide disabling factor. [291]

[290] (Sagebien & Lindsay, 2011)
[291] (Sagebien & Lindsay, 2011)

Figure 2 – Social and Environmental Value Governance Ecosystem (SEVGE) Model visualized[292]



Sagebien and Lindsay argue that that any model that attempts to realistically capture the complex dynamics of interrelations present in a multi-actor system cannot have as the center or hub of the system the firm and its objectives. Instead, the shared and/or aligned aims of all actors are what, realistically, either contribute toward or detract from the attainment of a collectively defined social and environmental value, a notion that lies much beyond what any triple bottom-line, firm-centered stakeholder model can possibly capture.[293] Looking towards to future of environmental regulations on Canadian mining companies operating abroad, if CSR initiatives are to be the

[292] (Sagebien & Lindsay, 2011)
[293] (Sagebien & Lindsay, 2011)

primary regulatory tool used by the Canadian mining industry and the Government of Canada, these actors would be wise to examine such a model as proposed by Sagebien and Lindsay.

Under a SEVGE model, the case studies examined in Chapter 2 would look completely different. Since CSR initiatives under a SEVGE model move away from placing the goals of the firm as the primary concern, there is a much stronger emphasis on environmental protection and community development – since in a SEVGE model communities take on a role equal to the firm. In the cases of Mongolia and Guatemala, CSR initiatives would be developed with the concerns of the South Gobi Herders, as well as with the communities affected by water pollution from the Marlin Mine in Guatemala in mind. As such, environmental impact assessments would serve the primary purpose not to maximize profit, but to maximize the benefits of all stakeholders and affected parties in the SEVGE model.

Chapter 6 – Conclusion

This paper has brought forward evidence indicating that there is currently a governance gap in the Canadian mining industry that is allowing Canadian mining companies to operate without adequate regulation in many host-countries abroad, particularly in host-countries with weak environmental regulations. As a result of this governance gap, Canadian mining companies have been able to commit environmental abuses abroad without facing any types of penalties. While the Canadian mining industry, as well as the Government of Canada, has argued that the best way to address this governance gap is through voluntary Corporate Social Responsibility initiatives, this paper has argued that not only are such initiatives proving to be ineffective at closing the governance gap from an empirical perspective, they are also flawed from a theoretical perspective. This paper has also argued that the best way to close the governance gap is through applying binding regulations on Canadian mining companies operating abroad, enforceable by the Government of Canada.

As mentioned in the introduction of this paper, the Canadian mining industry has reached prescriptive status in adopting sustainable development into their operations according to the life-cycle theory of norms. This means that while Canadian mining firms may be seeking to improve their CSR policies and environmental practices, their actual behavior may not yet be fully consistent with sustainable development norms.[294] Although the Canadian mining industry has not fully adopted the actions consistent with sustainable development norms, Sagebien and Lindsay point out that reaching prescriptive status in the life-cycle theory of norms is an important first step, and has shown that sustainable development norms have come a long way

[294] (Sagebien & Lindsay, 2011)

since being introduced to the Canadian mining industry a little over a decade ago.[295] The Canadian mining industry now, however, stands at an important crossroads. With ample evidence indicating that binding environmental regulations on mining companies operating abroad are needed, and with no other national governments imposing such transnational regulations, the Canadian mining industry, as well as the Government of Canada, has an opportunity to move beyond prescriptive status with regard to sustainable development norms, and to truly become a global leader in the international mining industry. Looking further at the life-cycle theory of norms, "first movers" play an important part in the global acceptance of norms.[296] First movers, especially influential first movers like the Canadian mining industry would be, act as trailblazers that send signals to others actors about the acceptability and possibilities of new norms. As more actors begin to follow the lead of first movers, a "tipping point" is eventually reached in which a critical mass of actors have accepted a norm.[297] Once this tipping point has been reached, a norm cascade occurs in which the norm in question becomes standard practice. In the case of the sustainable development in the Canadian mining industry, if Canada were to decide to apply binding regulations on Canadian mining companies operating abroad, it would not only close the governance gap in the Canadian mining industry and demonstrate Canada's commitment to sustainable development, but also potentially lead to similar actions from other countries, or from other transnational industries.

Another option is that the Canadian mining industry does nothing. If the Canadian mining industry and the Government of Canada choose not to apply binding regulations on Canadian mining companies operating abroad nor choose to improve CSR initiatives in a

[295] (Sagebien & Lindsay, 2011)
[296] (Sagebien & Lindsay, 2011)
[297] (Sagebien & Lindsay, 2011)

significant manner, and choose instead to maintain the status quo, then the Canadian mining industry may never move beyond prescriptive status with regard to sustainable development norms. If this is the case, the Canadian mining industry may still be able to assert itself as an economic leader in the international mining industry, but it will not rightly be able to call itself an environmental leader in the international mining industry.

Bibliography

Al-Rodhan, Nayef R.F. "Definitions of Globalization: A Comprehensive Overview and a Proposed Definition." *Geneva Centre for Security Policy.* 2006

Ambec, Stefan et al. "The Porter Hypothesis at 20 – Can Environmental Regulation Enhance Innovation and Competitiveness?" *Discussion Paper*. Washington: Resources for the Future. January 2011. Web.

Bankwatch Network. " Spirited Away – Mongolia's mining boom and the people that development left behind." December 2011. Web. 1 May 2013. <http://bankwatch.org/sites/default/files/spirited-away-mongolia-mining.pdf>.

"BILL C-300." *Private Member's Bill*. Parliament of Canada, 2009. Web. 1 Apr. 2013. <http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId =3658424>.

Boon, Jan. "The Role of Governments in CSR." *Governance Ecosystems - CSR in the Latin American Mining Sector*. New York: Palgrave Macmillan, 2011. 64-84. Web.

Bourassa, M. "Bill C-300 threatens Canada's international extractive sector." *Canadian Institue for Mining Magazine.* Vol.4, No.5, 2009. Web.

Bowler, Tim. "Dividing up Mongolia's Mining Riches from Oyu Tolgoi." *BBC News*. N.p., 27 Mar. 2013. Web. 1 Apr. 2013. <http://www.bbc.co.uk/news/business-21850604>.

"Canada's Mining Assets Abroad." *Government of Canada, Natural Resources Canada*. N.p., 27 Mar. 2012. Web. 24 Apr. 2013. <http://www.nrcan.gc.ca/minerals-metals/publications-reports/4425>.

Canadian Center for Resource Conflict. "Corporate Social Responsibility: Movements and Footprints of Canadian Mining and Exploration Firms in the Developing World." October, 2009. Web. <http://www.miningwatch.ca/sites/www.miningwatch.ca/files/CSR_Movements_and_Footprints.pdf >.

Dagenais, Pierre. "Canadian Mining Industry Wins with Bill C-300's Defeat." *Canadian Mining Journal*. N.p., Dec. 2010. Web. 25 Apr. 2013. <http://www.canadianminingjournal.com/news/canadian-mining-industry-wins-with-bill-c-300-s-defeat/1000395591/>.

Dashwood, Hevina S. "Sustainable Development Norms and CSR in the Global Mining Sector." *Governance Ecosystems - CSR in the Latin American Mining Sector*. New York: Palgrave Macmillan, 2011. 31-46. Web.

Djelic, Marie-Laure & Kerstin, Sahlin-Andersson. "Transnational Governance: Institutional Dynamics of Regulation". Cambridge: Cambridge University Press, 2006. 1-18. Web.

Drohan, Madelaine. *Regulating Canadian Mining Companies Abroad: The 10-year Search for a Solution*. Issue brief no. 7. Centre for International Policy Studies - University of Ottawa, Jan. 2010. Web. 1 Apr. 2013.

"Environmental Concerns Through the Mine Life Cycle." *Environmental Code of Practice for Metal Mines*. Government of Canada, Environment Canada, 15 May 2012. Web. 24 Apr. 2013. <http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En>.

E-Tech International. "Evaluation of Predicted and Actual Water Quality Conditions at the Marlin Mine, Guatemala." August 2010. Web. 25 June 2013. <http://www.etechinternational.org/082010guatemala/final/MarlinReport_Final_English_0811.pdf>.

Financial Post. "Mongolia Risks Killing Mining Sector." *Financial Post*. N.p., n.d. Web. 1 Aug. 2013. <http://www.financialpost.com/scripts/story.html?id=bd5c323c-cde2-4f93-8a7a-65dde63079a8>.

"Foreign Affairs and International Trade Canada." *CSR: Building the Canadian Advantage: A Corporate Social Responsibility (CSR) Strategy for the Canadian International Extractive Sector*. N.p., 10 Feb. 2012. Web. 1 Apr. 2013. <http://www.international.gc.ca/trade-agreements-accords-commerciaux/ds/csr-strategy-rse-stategie.aspx?view=d>.

Freeman, R. E. *Strategic Management, A Stakeholder Approach.* Boston: Pitman Publishing, 1984. Web.

Fulmer, Amanda M., et al. "Indigenous Rights, Resistance, and the Law: Lessons from a Guatemalan Mine." Latin American Politics and Society. Vol.50, No.4, 2008.

"GDP - Canadian Economy." *Canadian Industry Statistics*. Industry Canada, 22 Nov. 2011. Web. 24 Apr. 2013. <http://www.ic.gc.ca/eic/site/cis-sic.nsf/eng/h_00013.html>.

Goss, Allen. "Corporate Social Responsibility in the Extractive Industries: The Role of Finance." *Governance Ecosystems - CSR in the Latin American Mining Sector*. New York: Palgrave Macmillan, 2011. 187-200. Web.

Hannum, Hurst. Autonomy, Sovereignty, and Self-Determination – *The Accommodation of Conflicting Rights.* Pennsylvania: University of Pennsylvania Press, 1996. Web.

Hart, Ramsey. "Introduction to the Legal Framework for Mining in Canada." *MiningWatch Canada*. N.p., July 2012. Web. 1 Apr. 2013. <http://www.miningwatch.ca/publications/introduction-legal-framework-mining-canada>.

Hitt, Michael, et al. "International Diversification: Effects on Innovation and Firm Performance in Product-Diversified Firms." *The Academy of Management Journal*. Vol. 4 No. 4. 1997.

Hogan Lovells. "Revision of Environmental Laws in Mongolia and its impact on the mining sector." October 2012. Web. <http://www.hoganlovells.com/files/Uploads/Documents/Mongolia_newsflash_-_Revision_of_environment_law_-_October_2012_1003877.pdf>.

Jargalsaikhany, Mendee. "Major Revision of Mongolian Regulations is Underway." *Eurasia Daily Monitor.* Vol.10, No.42, 2013. Web. 5 June 2013. <http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=40552&tx_ttnews%5BbackPid%5D=620#.Uip3KRZU3dk>.

Kohn, Michael, and Yuriy Humber. "Rio Tinto's Oyu Tolgoi Copper Mine Raises Water Worries in Mongolia's Gobi Desert." *Financial Post*. N.p., 21 June 2013. Web. 06 Aug. 2013. <http://business.financialpost.com/2013/06/21/rio-tintos-oyu-tolgoi-copper-mine-raises-water-worries-in-mongolias-gobi-desert/>.

Life Cycle of a Mine. Rep. Association of Mineral Exploration British Colombia, 2013. Web. 1 Apr. 2013. <http://www.amebc.ca/documents/resources-and-publications/publications/current/Life%20Cycle%20of%20a%20mine%20-%20web.pdf>.

Lindsay, Nicole M. "Mining Industry Associations and CSR Discourse: Mapping the Terrain of Sustainable Development Strategies." *Governance Ecosystems - CSR in the Latin American Mining Sector*. New York: Palgrave Macmillan, 2011. 133-53. Web.

Lui, Emma. "Liberal MP John McKay Tells Mining Conference: Bill C-300 Will See a 'legislative Resurrection'" Web log post. *Making Waves*. Rabble, 1 Feb. 2011. Web. 12 June 2013. <http://rabble.ca/blogs/bloggers/making-waves/2011/01/liberal-mp-john-mckay-tells-mining-conference-bill-c-300-will-se>.

Marks, Susan. *The Riddle of All Constitutions*. Oxford: Oxford University Press, 2000. Web.

Miles, Morgan & Covin, Jeffrey G. "Environmental Marketing: A Source of Reputational, Competitive, and Financial Advantage." *Journal of Business Ethics*. Vol. 23, 2003. Netherlands: Kluwer Academic Publishers. Web.

Mining Association of Canada. *F&F 2012 - Facts and Figures of the Canadian Mining Industry*. Rep. N.p., Dec. 2012. Web. 1 Apr. 2013. <http://www.mining.ca/www/media_lib/MAC_Documents/Publications/2013/Facts%20and%20Figures/FactsandFigures2012Eng.pdf>.

"Mongolia Suspends Two Mining Permits." *Wall Street Journal*. N.p., 28 Feb. 2013. Web. 1 Apr. 2013. <http://online.wsj.com/article/SB10001424127887324662404578331164124260972.html>.

OECD. "Environmental Regulation and Competition." *Policy Roundtables*. November, 2006. <http://www.oecd.org/regreform/sectors/37981581.pdf>.

Office of the Auditor General of Canada. *Federal Regulation of Canadian Mining Companies Operating in Canada and Abroad*. N.p., 16 Sept. 2010. Web. 1 Apr. 2013. <http://www.oag-bvg.gc.ca/internet/english/pet_304_e_34995.html>.

On Common Grounds Consultants. "Human Rights Assessment of Goldcorp's Marlin Mine". May 2010. Web. 25 June 2010. < http://www.hria-guatemala.com/en/docs/Human%20Rights/OCG_HRA_Marlin_Mine_May_17.pdf>.

Oyu Tolgoi Watch. "A Useless Sham" A Review of the Oyu Tolgoi Copper/Gold Mine Environmental and Social Impact Assessment." December 2012. Web. 20 June 2013. <http://bankwatch.org/sites/default/files/a-useless-sham-OT-ESIA-review-14Dec2012.pdf>.

Physicians for Human Rights. "Toxic Metals and Indigenous Peoples Near the Marlin Mine in Western Guatemala – Potential Exposures and Impacts on Health". May 2010. Web. 25 June 2013. <https://s3.amazonaws.com/PHR_Reports/guatemala-toxic-metals.pdf>.

"Pollution and Waste - Mining." *Government of Canada, Environment Canada*. N.p., 23 Jan. 2013. Web. 1 Apr. 2013. <http://www.ec.gc.ca/pollution/default.asp?lang=En>.

Porter, Michael. "America's Green Strategy." *Scientific American.* No. 264, 1991. Web.

Porter, M., and Van der Linde, C. “Toward a New Conception of the Environment-Competitiveness Relationship.” *Journal of Economic Perspective.* Vol.9, No.4, 1995. Web.

Prospectors and Developers Association of Canada. "Bill C-300 Position Statement" August, 2009. Web. <http://www.pdac.ca/docs/default-source/public-affairs/csr-bill-c-300-submission.pdf?sfvrsn=6>.

Prospectors and Developers Association of Canada. "Bill C-300 Will Hurt Canadian Mining." *Canadian Mining Journal*. N.p., 13 Sept. 2010. Web. 1 Apr. 2013.

Ruggie, John. “Protect, Respect, and Remedy – A Framework for Business and Human Rights.” *Report of the Special Representative of the United Nations Secretary-General on the issue of human rights and transnational corporations and other business enterprises.* Spring 2008. Web. 8 June, 2013.

Sagebien, Julia & Lindsay, Nicole J. "Systemic Causes, Systemic Solutions." *Governance Ecosystems - CSR in the Latin American Mining Sector*. New York: Palgrave Macmillan, 2011. 12-31. Web.

Seck, Sara L. “Unilateral Home State Regulation: Imperialism or Tool for Subaltern Resistance?” *Osgoode Hall Law Journal.* Vol. 46, No.3, October 2008. Web. 25 July 2013.

Seck, Sara L. “Home State Responsibility and Local Communities: The Case of Global Mining” *Yale Human Rights and Development Law Journal.* Vol. 11, 2008. Web. 25 July 2013.

Storry, M. & Ashikhimina, A. “Mongolian Mining.” Engineering and Mining Journal Global Business Report. July/August 2010. Web. <http://gbreports.com/admin/reports/EMJ_MongoliaReport2010.pdf>.

Szablowski, David. “Transnational Law and Local Struggles: Mining, Communities and the World Bank”. Portland: Hart Publishing, 2007. 4-23.

Tapper, Josh. "Massive Mongolian Mine Raises Environmental Fears." *The Star*. N.p., 10 Apr. 2012. Web. 1 Apr. 2013. <http://www.thestar.com/news/world/2012/04/10/massive_mongolian_mine_raises_environmental_fears.html>.

The Economist. “ Mine, All Mine”. *The Economist.* N.p., 21 Jan. 2012. Web. July 5 2013. <http://www.economist.com/node/21543113>.

The Economist. “The Dutch Disease”. *The Economist* . N.p. 26 Nov. 1977.

Tufts University Global Development and Environment Institute. “Searching for Gold in the Highlands of Guatemala – Economic Benefits and Environmental risks of the Marlin Mine.” Massachusetts: Global Development and Environment Institute. 2011. Web. 25 June 2013. <http://ase.tufts.edu/gdae/policy_research/marlinemine.pdf>.

Tuinhof, A. and Buyanhisnig, N. “Groundwater Assessment of the Southern Gobi Region.” *Mongolia Discussion Papers, East Asia and Pacific Sustainable Development Department.* Washington, D.C.: World Bank. 2010. Web. 15 June 2013. <http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/06/05/000356161_20120605021723/Rendered/PDF/627890REPLACEM07018020110Box361493B.pdf>.

Vogel, David. “Trading up and governing across - transnational governance and environmental protection.” *Journal of European Public Policy*. Vol. 4, No.4, 1997. Web.

Webb, Kernaghan. "CSR and the Law: Learning from the Experience of Canadian Mining Companies in Latin America." *Governance Ecosystems - CSR in the Latin American Mining Sector*. New York: Palgrave Macmillan, 2011. 47-64. Web.

Whittington, Les. "Canadian Mining Firms Worst for Environment, Rights." *The Star*. N.p., 19 Oct. 2010. Web. 06 July 2013. <http://www.thestar.com/news/canada/2010/10/19/canadian_mining_firms_worst_for_environment_rights_report.html>.

World Bank. “Mongolia Environment”. Web. 28 July 2013. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/EXTEAPREGTOPENVIRONMENT/0,,contentMDK:20266325~menuPK:537827~pagePK:34004173~piPK:34003707~theSitePK:502886,00.html>.

Zarsky, Lyuba, and Leonardo Stanley. *Searching for Gold in the Highlands of Guatemala*. Rep. Global Development and Environment Institute - Tufts University, Sept. 2011. Web. 1 Apr. 2013. <http://ase.tufts.edu/gdae/policy_research/marlinemine.pdf>.