

*Routledge Studies of the Extractive Industries and
Sustainable Development*

LOCAL COMMUNITIES AND THE MINING INDUSTRY

**ECONOMIC POTENTIAL AND SOCIAL AND
ENVIRONMENTAL RESPONSIBILITIES**

Edited by
Nicolas D. Brunet and Sheri Longboat



Local Communities and the Mining Industry

This book explores the challenges and opportunities at the intersection of the global mining sector and local communities by focusing on a number of international cases drawn from various locations in Canada, the Philippines, and Scandinavia.

Mining's contribution to economic development varies greatly across countries. In some, it has been a major engine of development, but in others, disputes have erupted over land use, property rights, environmental damage, and revenue sharing. Corporate social responsibility programs are increasingly relied upon to manage company-community relations, yet conflicts persist in many settings, with significant costs for companies and communities. Exploring the many factors and drivers that characterize relationships among different actors within the sector, the volume contributes towards the development of practical wisdom, collective understanding, common sense, and prudence required for the mining sector and community partners to realize the economic potential and social and environmental responsibilities of non-renewable resource development. The book examines case studies from Canada, Scandinavia, and the Philippines, three regions amongst the world's top countries of mining operations. Drawing on their extensive experience in these regions, the contributors explore distinctive mining sectors in the Global North and South, the variation surrounding different types of extractive industries, and at different scales, and the legal processes in place to protect local communities. Key themes include corporate social responsibility, impact assessment, foreign ownership, Indigenous Peoples, gender, local insurgency, and mining disasters as well as climate change. The book identifies areas of future research and pathways to achieving stronger, respectful, and mutually beneficial relationships at the nexus of global mineral extraction and local communities.

This book will be of great interest to students and scholars of the extractive industries, natural resource management, sustainable business and corporate social responsibility, Indigenous studies, and sustainable planning and development.

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In Memoriam

The research presented in this volume was initiated by Dr. Nonita Tumulak Yap, Professor Emerita, University of Guelph. During 40 years of research and teaching, Nonita focused on environment and development issues including cleaner production, environmental impact assessment, disaster planning, and public participation. She taught on these themes and conducted fieldwork in over 20 countries. She was a consultant to numerous agencies including the United Nations Environment Program, the World Bank, the Canadian International Development Agency and Global Affairs Canada, the International Development Research Centre, the Canadian Council of Environment Ministers, and the Canadian Environmental Assessment Agency as well as civil society groups, including CUSO, OXFAM, the YM/YWCA, Partnership Africa-Canada, and the Shastri Indo-Canadian Institute. Nonita was skeptical but open to the potential environmental and social benefits of corporate social responsibility and the Global Minerals and Local Communities project was intended to assess the environmental and social impact of CSR in mining. Nonita led the team that prepared the successful funding proposal to the Canadian Social Sciences and Humanities Research Council. Sadly, Nonita suffered a stroke and passed away in May 2018 just as the SSHRC funding for this research was approved. Although she was deeply missed, the research continued in her absence and still under her significant influence.



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Foreword

Hans Matthews

The concept for this book began about six years ago, when I was first invited to join the international SSHRC research project, “Global Minerals Local Communities in Canada and the Philippines (GMLC)”. I was thrilled to take part in this opportunity and believed in the ability for the GMLC research team to unearth tools which could empower both Indigenous communities and the mining industry for mutual success. As President of the Canadian Aboriginal Minerals Association for the past 30 years, my leadership in this field has proven that there remains much to unpack, learn, and challenge in relation to company-community-government relations within the extractive industry.

I met with the research team on several occasions and am impressed by their experience and commitment to demonstrate that with progressive learning and grassroots work in the field or in the community, the mining industry and community can co-exist for mutual benefit. I would like to thank the editors, Sheri Longboat and Nicolas Brunet, as well as the co-authors for inviting me to be a part of this exciting project and to have the opportunity to take part in the formulation of *Local Communities and the Mining Industry: Economic Potential and Social and Environmental Responsibilities* book.

For millennia, Indigenous communities across the world have played a fundamental role within the mining sector extracting elements from the ground such as gold, gemstones, silver, copper, flints, and clays. Metals and minerals are important aspects of the land and are integrated into Indigenous society and economics via trade, and utilized as tools, weapons, ornaments, diet, and so on. However, local community experiences in working with mining companies over the past few hundred years have been mixed, often with negative legacies that still exist today.

As the world population grows alongside the increasing demand for metals and minerals, the insatiable desire for mining exploration has heightened in remote regions of the world where Indigenous communities maintain their own governance, well-being, and relationships with their land. We are often asked the question, how can mining companies and Indigenous communities co-exist in the same territory when their values are vastly different? We are looking at diverse systems of governance trying to operate in a singular fashion, with the result manifesting as a collision of beliefs, worldviews, behaviors, and intentions. Oftentimes,

communities talk about leaving a positive impact on the environment, one which embodies intergenerational sustainability and prosperity for people and the planet, while mining companies often focus on profit maximization and wealth creation for shareholders. Can these two worlds co-exist?

This book addresses the “ability of local populations to make regionally appropriate decisions” to enable social and environmentally responsible development. With the world becoming more connected through the internet, Indigenous Peoples are now more cautious in their relationship with the industry. Many have learned that there continues to be a gross misunderstanding on the meaning of land, the meaning of sharing, and sustainable benefits for future generations. From the Indigenous perspective, land is the environment and waters, the land is the people, the land is in the body, culture, and spirit of the people. Having access to and being able to rely on the health of the land is fundamental to Indigenous community health, physical, mind, body, and spirit. Many communities have learned from their neighbors of the legacy and impacts the industry can have on land, thus decision making is challenging and viewed as a compromise on a community’s values.

While Indigenous Peoples across the world remain discretely heterogeneous and ethnolinguistically diverse from one another, the common parallel that exists is that Mother Earth sustains human existence. From the highest peaks to the lowest valleys, from the desert to the tropics, to the tundra and the rainforests, all aspects of the earth have helped humans survive the harshest environments. Since time immemorial, Indigenous Peoples have prospered through ancestral knowledge of the cycles in nature, teachings from the land, and understanding of the interconnectivity and inter-dependency of all living and nonliving beings. The lessons of survival are carried in legends, stories, and song. While some may call this traditional ecological knowledge, it’s all of the community’s knowledge of the land, its people, its health, and lessons learned in their relationship with all beings including water. Upholding respect and recognition for the value this knowledge holds is the key building block to ensuring successful community-company relationships within the industry.

Many in the Indigenous community say that in the wake of extreme extractive industries, access to clean water is rapidly declining.

In our prophecies, in our Three Fires Midewiwin Society, we are taught that water is very precious. I was told by a grand chief that 30 years from now an ounce of water will cost as much as an ounce of gold if we continue with our negligence,

said Grandmother Josephine Mandamin – Odawa, Wikwemikong Unceded Territory, 2014.

The fight to protect the land and our economies continues as well. The Indigenous view that the land supplies you with everything you need to survive clashes with the non-Indigenous view that you have to conquer the land.

We Indigenous people in Canada still get a big part of our economy from the land, the animals, the plants for food and medicines and the important good water that supports that economy. But it is becoming more difficult to keep our economy intact.

–Xat’sull Chief Bev Sellars, Secwepemc, 2013

This book endorses and stresses the need for resource companies to access community knowledge to better design projects and to mitigate negative environmental impacts. Many communities are well aware that some governments require community consultation to gather community knowledge and to understand project impacts to all aspects of community life, including health. Today many from industry and community formalize their relationship in an agreement, but the real implementation occurs when the spirit and intent of these agreements are maintained. The desire for many communities is to have a role in project decisions, especially in those mining activities impacting access to resources, protecting the rights and interests of the community, and those affecting the future of community members, especially youth.

The future for many community members, for those who want to be a part of the corporate industry world, is to become an owner in business, or to be a major shareholder in projects and perhaps, as Indigenous governance is revived and strengthened, to be the regulators of resource development on their lands and territories. My view is that there will be a paradigm where together we will move beyond what we refer to today as “Corporate Social Responsibility” (CSR) to a focus on self-governing communities possessing authority and agency to demand that mining companies comply with community laws. My hopes are that CSR will be transformed from the contemporary focus on shareholder objectives to an equalization where both industry and community share in the prioritization of the socio-ecological responsibilities and well-being of the environment and community.

This book describes a few of the examples of the varying challenges faced by communities and the mining industry players to form win-win relationships. The authors have done well to present and discuss the many broad or diverse examples throughout the world, with emphasis on the Philippines, Scandinavia, and Canada; the authors have shown that the primary outcome is that both Indigenous communities and mining industry players are learning together to meet the challenges of the mining sector as well as in achieving their own objectives for the benefit of their shareholders and community members. Whether you are from the mining industry, an Indigenous community, or have a keen interest in understanding how the industry and community have attempted to overcome challenges to be mutually successful, then this book will help you on your path to building on the success of others to perhaps be a leading practice for all to document. We are all on the shared path to success.



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The Global Minerals Local Communities Project was initiated and conceived by PI, Nonita Yap (deceased), and led by co-PIs Nicolas D. Brunet, Sheri Longboat, John Devlin, Ken Coates, and Dominique Caouette. All work presented in this volume was supported in part by funding from the Social Sciences and Humanities Research Council of Canada, Insight Grant # 435-0548-2018. We would also like to acknowledge ongoing support for the project, particularly via graduate student assistantships, from the School of Environmental Design and Rural Development, University of Guelph, Canada; the Johnson Shoyama Graduate School of Public Policy, University of Saskatchewan, Saskatoon, Canada; the Department of Political Science, University of Montréal, Montréal, Canada; and the Third World Studies Center, University of the Philippines Diliman, Philippines.



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Introduction

Mine-community relations in the Global North and South

*Nicolas D. Brunet, Sheri Longboat and
Angela M. Asuncion*

From the microchips in cellular devices and cars to aluminum cans, mining provides the raw materials necessary to build the infrastructure and instruments used for everyday life by humans (Carvalho, 2017). As minerals become increasingly critical to societal functions and economic growth, relationships of dependency have grown stronger through globalization and the pervasiveness of modernization, promising to eradicate poverty across the Global North and South. Global forces such as international treaties and economic relationships, climate change and technological innovations all exert powerful influences over the mining sector. However, viable mineral deposits are only found in specific locations; hence mining operations are also subject to local politics, economies, histories and most importantly perhaps, local socio-cultural relationships with the land.

The nature of the industry is, as a result, simultaneously vulnerable, place dependant and resilient, evolving in many instances at the nexus of large corporations operating at the local scale within communities hosting extractive operations, by choice or not. Over the last five decades, the contribution of mining to economic development has varied profoundly across the world. In some, it has been an engine for economic prosperity. In others, disputes have erupted over land use, property rights, environmental damage, and revenue sharing.

Neoliberalism and Extractivism

To this day, various aspects of neoliberalism remain foundational to the landscape and operationalization of contemporary extractivism and resource governance. Harvey (2005) defines neoliberal capitalism as,

a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade.

(p. 2)

During the global liberalization of the 1980s and 1990s, elite political actors and international lenders in the Global North drove harsh economic transformations

across the Global South through Structural Adjustment Programs (SAPs) (Camba, 2015). SAPs were imposed to eliminate threats to transnational mining profits, with powerful Global North actors utilizing neoliberal reform to counter the Global South's attempts at national industrialization and extinguish endeavours towards greater control of national resources (Brisbois, 2021).

Despite neoliberal reforms promising improvements in quality of life, economic growth has frequently failed to transpire across mineral rich nations in the Global South; a distinct characteristic of the “resource curse” phenomena (Coumans, 2019; Gamu et al., 2015; London and Kisting, 2016). For example, since 1995, the Philippines implemented substantial neoliberal mining reforms, yet the industry contributed 0.89% to the gross domestic product (GDP) (EITI, 2016). Moreover, Philippine provinces hosting large-scale mining operations embody acute wealth inequality, with poverty incidences at 30–60% (Magno, 2015). However, disparities in resource richness and economic prosperity are not isolated to Global South countries, the phenomenon remains evident across marginalized and underserved communities across the Global North as well. Take Appalachia for instance, richly endowed in mineral resources and simultaneously one of the most economically poor regions of the United States (Hendryx, 2010).

Overwhelmingly similar experiences of power and wealth imbalances in the mining industry have led scholars to emphasize the neocolonial nature of large-scale resource-led development (Gamu et al., 2015; Gordon & Webber, 2016). Foreign interests and power relationships founded on extractive modes of accumulation have existed for centuries between the Global North and Global South (Camba, 2015). However, the neocolonial nature of extractive relationships have manifested through several forms, such as acute inequalities in wealth creation for Global North actors; illicit financial flows enabling tax evasion and money laundering; large-scale mining outstripping underserved communities of their land and water resources; the criminalization and legal oppression of mining resistance; and the relinquishment of mine host nation and Indigenous sovereignty through conditional loans and corruption (Brisbois, 2021; Deneault & Sacher, 2012; Kistnasamy et al., 2018; Misoczky & Böhm, 2013), amongst other methods of domination and control.

The international mining industry is ridden with geopolitical and environmental conflict, transcending beyond national borders across spaces, scales, and relations. Despite its necessity in global society, large-scale industrial mining remains highly contested for its operations' social, cultural, and environmentally calamitous impacts. This scrutiny lies in mining being intrinsic to the transformation of landscapes, with externalities running parallel to mass deforestation, erosion, depletion of surface and groundwater, metal leaching within critical watersheds, and devastating effects on livelihoods, sacred customary practices, and senses of self. Moreover, a mining license is a bundle of rights—the right to convert land from one use to another, to use water for mining purposes, and, to the extent that it allows the miner to discharge materials into the environment, to pollute (Bridge, 2002, p. 375). The geophysical impacts depend on site geology, competing resource uses, extraction and processing technologies and waste

management strategies employed, ultimately emerging as sources for various forms of conflict (Bebbington et al., 2008; Coronado & Fallon, 2010; Mainhardt-Gibbs, 2003; Martinez-Alier, 2001; Sandlos & Keeling, 2015; Slack, 2012).

Specifically paramount to the mining industry is access to water and land for excavation and mineral processing, amongst other needs. As such, water and land's essentiality to mining operations has repeatedly collided with human rights in local communities, with affected community members going to great lengths to defend their access to land, food security, lifeways, and agency. Women, children, marginalized members of affected communities, and those who depend on the land for sustenance bear a disproportionate share of the social, health, and violent externalities of mining conflict. Increasing conflict in large-scale mining regions has also led to human rights violations, with evidence of widespread displacement, host-community militarization; extrajudicial killings of community members resisting mining; and violent attacks upon environmental and Indigenous activists, amongst other forms of human rights abuses (Arce & Miller, 2016; Coumans, 2017, 2019; Doyle et al., 2007; Imai et al., 2016).

When examining industry issues at the macro level, the supply chain is highly stratified moving from producers, refiners, commodity exchanges, wholesalers, manufacturers, retailers, and, eventually, consumers (IIED & WBCSD, 2002). This stratification not only creates a great mental and psychological distance between consumers and the holes in the ground but also makes mining extremely vulnerable to fluctuations in commodity and capital markets. Adjacent communities ultimately bear the consequences of the shifts from boom to bust, the transition of permits between companies, and the reality that mineral resources are finite. Here lie additional sources of potential conflict and critical ongoing issues at the interface of a global mining industry within local contexts (e.g., Browne et al., 2011).

The Rise in Corporate Social Responsibility and Social Licenses to Operate

The general shift away from state authority to policies fixated on privatization and de-regulation continue to support the mining sector globally to the detriment of local communities. This shift is occurring as state-based regulations have also evolved to support power relationships within complex modes of resource governance between state, hybrid and non-state actors and institutions (Himley, 2010). This “new” and increasingly complex actor network has resisted binding regulatory reform in the mining sector as they seek profit maximization. As a result, much of the public outcry and local resistance have been subject to a proliferation of “soft” laws, otherwise known as voluntary instruments under the umbrella of Corporate Social Responsibility (CSR) and the pursuit of a Social License to Operate (SLO).

CSR programs are increasingly relied upon to manage company-community relations (Brueckner et al., 2014; Luning, 2012; Owen & Kemp, 2013). Kotler and Lee (2004) define CSR as “a commitment to improve community well-being

through discretionary business practices and contributions of corporate resources” (p. 3). CSR has proliferated to become an industry in and of itself, with CSR experts and consultants creating regulatory norms and codes of conduct for the global mining industry (See Mining Association of Canada Towards Sustainable Mining Initiative, United Nations Global Compact, International Council on Mining and Metals Sustainable Development Framework, for examples). Within this space, companies are encouraged to seek a SLO as a means of operationalizing CSR (e.g., one way, a company can act in a socially responsible manner). Nelsen (2006) defines SLO

...as a set of concepts, values, tools and practices that represent a way of viewing reality for industry and stakeholders. Its purpose is to create a forum for negotiation whereby the parties involved are heard, understood, and respected. SLO is a means to earn accountability, credibility, flexibility and capacity for both stakeholders and industry.

(p. 161)

In contrast, Owen and Kemp (2013) suggest that “social licence has emerged as an industry response to opposition and a mechanism to ensure the viability of the sector” (p. 29). Following CSR standards, mining companies invest in health (e.g., HIV/AIDS programs), livelihoods (e.g., income-generating activities for women), and education and training projects (e.g., building or repairing schools, providing scholarships) in host communities (e.g., Jamali, 2007). These programs frequently start during exploration, continue, albeit generally altered during production, or change of ownership (Browne et al., 2011; Luning, 2012), and are often abandoned during downturns or after exhaustion of the mineral reserve. Thus, it is common for CSR initiatives to capitalize on programs which fixate on the short-term needs of host communities, rather than the building of inter-generationally self-sufficient social capacities and infrastructure in the region (Coumans, 2019). Rather than companies engaging in the facilitation of social and environmental security nets for host communities during and after mine closure, CSR has been found to create a culture of dependency. Other critiques of CSR highlight its fundamental utility as an impression management tool, used to defuse critique amongst the public and create a signal of legitimacy to social performance amongst shareholders and key stakeholders (Ciupa & Zalik, 2020; Coumans, 2019).

By the 1990s, observers began suggesting that mine-community relations could be improved, with stakeholders and affected actors pushing for an ideological and political re-examination of the responsibility businesses play in society. As the role, scope, and depth of business transformed to include social and environmental responsibilities, the emergence of the sustainable development paradigm became critical to the evolution and operationalization of CSR. The discourse of sustainable development has been utilized as an instrument to address socio-environmental issues brought about by economic growth (Banerjee, 2003). Although the concept remains broad and ambiguously interpreted, the most common definition of sustainable development is that of the Brundtland

Commission, “a process of change in which the exploitation of resources, direction of investments, orientation of technological development and institutional change are made consistent with future as well as present needs” (WCED, 1987, p. 9). By September 2015, the United Nations General Assembly adopted the Sustainable Development Goals (SDGs), a universal framework that works towards actualizing social inclusion, environmental sustainability, and economic development. The SDGs remain a powerful discursive tool, with corporations positioning themselves as drivers of sustainable development within the global economic arena (Monteiro et al., 2019). For example, Frederiksen (2018) considers CSR as “an important way for the private sector to deliver development, linking economic and social goals to produce win-win outcomes” (p. 495). However, the effectiveness of CSR and related mechanisms for sustainable development have been called into question as mining companies continue to pursue destructive practices while claiming to be corporately responsible citizens. In summary, there is a need for greater insight into the juxtaposition of positive advancements in mining accountability awareness and the negative socio-environmental impact the industry has developed.

Purpose of This Volume

This book explores the challenges and opportunities at the intersection of the global mining sector and local communities by focusing on a number of international cases drawn from various locations focusing on Canada, the Philippines, and Scandinavia. These jurisdictions present rich and varied grounds for exploring mining company-community relations. All are among the world’s top countries in terms of mining production value as percentage of GDP (ICMM, 2014) and the majority of mining operations are in areas associated with Indigenous Peoples’ territories. They have in place legislation regulating mining exploration and production for establishing environmental security. They also have mining associations pushing for CSR to achieve sustainable mining in Canada (MAC, 2015) and responsible mining in the Philippines (GOP, 2013). In Canada, Constitutional protection of Aboriginal and Treaty rights requires the Crown to consult and accommodate Aboriginal Peoples when activities adversely impact proven or asserted, Aboriginal or Treaty rights; a duty that arises frequently in natural resource extraction (GOC, 2011). In the Philippines, mining proponents must obtain an environmental compliance certificate, consult with local governments and communities to obtain social acceptability, and in areas covered by ancestral domains, secure the free and prior informed consent of the Indigenous community (Yap, 2015). Revenue sharing with the host communities is argued to be severely wanting (Coates, 2015; Gorre et al., 2012). There are also important differences. Canada and Finland have no artisanal and small-scale miners whereas the Philippines has an estimated 300,000, whose operations are exempted from the provisions of environmental legislation. Canada and Scandinavia enjoy some of the highest levels of social peace globally. Meanwhile, the Philippines has faced ideology-based armed conflicts in 91% of its provinces

since 1986 (Holden & Jacobson, 2007). It is also important to note the Canadian and Scandinavian mining interests operate in the Philippines allowing for interesting comparisons of corporate behaviours in the Global North and South. Second, the authors either live in the places they study and/or have spent considerable amounts of time studying these issues in these countries. This expertise also drives the case study selection and is unique to the author team.

Our work builds upon the premise that communities have diverse and complex site-specific development goals, interests, and needs as they engage with corporate actors. Mining companies, on the other hand, are multifaceted actors, not monolithic entities that behave uniformly. Yet conflicts persist in many settings, with high social, environmental, and economic costs for communities and companies despite a plurality of CSR mechanisms and regulatory frameworks in place, with an increased emphasis on SLO of late. The aim of this edited volume is to investigate the many factors that shape and characterize this complex space at the nexus of actors within the mining sector and host communities.

Overview

This volume is divided into two sections. The first provides four reviews of key topics in addressing the aim of the volume, namely the successes and failures of CSR and SLO mechanisms as well as the role of impact and benefit agreements (IBAs) in mitigating the negative externalities of mining, power inequalities, foreign ownership, and gender-specific issues that drive much of the conflict within the mine-community space. The second provides in-depth case studies exploring these key themes in a variety of contexts as well specific issues such as post-closure abandonment, infrastructure maintenance, impact mitigation and remediation, and climate change.

Chapter 1

Mining development has had a long history of conflict. In the 1990s, studies began to suggest how mine-community relations could be improved with early attention given to CSR and the pursuit of a SLO. In this chapter, authors begin with a brief review of the grounds for mining conflict and suggestions for improvements in the behaviours of firms. It then focuses on exploring ways communities view their relationships with the mining sector, particularly in the period when CSR and SLO became centre pieces in the debate over community-mine relationships. The chapter reviews examples and examines their often-ambiguous outcomes. It concludes that the literature offers only limited evidence of success from the community perspective. While much is promised, and some has been delivered, success remains elusive. It also finds that these ambiguous results can be explained by several factors: the inconsistent behaviours of companies, the offer of culturally or developmentally inappropriate programs, the diversity of goals found within communities; and the unanticipated and unpredictable impacts of mining that outstrip the capacity of communities to adapt. Even with

the help of ameliorative programs from companies and governments intended to compensate for such disturbances, the overall impact of mining developments for communities is questionable even when CSR is practiced, and social license is achieved.

Chapter 2

This chapter argues that the 21st century has seen a convergence of three historically antagonistic forces—Indigenous rights and aspirations, government social and environmental priorities, and corporate interests and management priorities—that produced intense conflict over mining and then converted these challenges into the foundation of mutually-beneficial arrangements. The transition has not been uniformly successful, working best in the industrial democracies and less effectively in developing nations that are unable to sustain the rule of law. Indigenous communities have been learning from and about each other's relationships with mining companies and those mining companies, many with extensive international operations, have been developing best practices in community relationships and applying them in different cultural settings. This chapter assesses the changing relationships between mining companies and Indigenous Peoples, considering the practical manifestations of CSR and impact benefit agreements. With mounting pressure to expand mining globally, the ability of Indigenous communities, mining firms and governments to find common cause and work towards mutually satisfactory arrangements that allow environmentally-sound projects to continue is of paramount importance.

Chapter 3

Canada is a prominent leader in the global extractive sector, with more than 800 Canadian mining corporations active in over 100 countries across the globe. Canadian mining assets overseas are valued at \$144.2 billion, accounting for approximately 65% of the nation's total mining assets. However, Canada's dominance in the international mining industry has come at a cost, especially for the Global South. Historically, Canadian mining corporations have been under scrutiny for taking advantage of weak legal systems in underdeveloped nations. The public has become increasingly aware of alleged human rights abuses and socio-environmental disasters involving Canadian mining operations overseas. Despite these behaviours, there remains an absence in global regulatory treaties litigating corporate accountability in the extractive industry. Liabilities from mining externalities have consequently been ignored through non-binding international frameworks, national policies, and CSR. However, the legitimacy of global frameworks and CSR practice have been called into question as socio-environmental negligence remains unabated across the Global South's extractive sector. This chapter reviews the international legal systems, national policies, and CSR mechanisms regulating the Canadian mining industry in the Global South. It specifically addresses gaps in knowledge related to Canadian

foreign ownership and CSR practice in underdeveloped nations, exploring the impact of Toronto Ventures Incorporated within the Philippines as a case study for analysis.

Chapter 4

The mining industry has been found to provide economic opportunities for local Indigenous communities, but these benefits are not always distributed equally. For instance, there is evidence of gendered socio-economic impacts of mining within traditional lands or treaty territories of Indigenous communities that have resulted in instances of violence against women. In Canada, the 2019 National Inquiry report on Missing and Murdered Indigenous Women and Girls (MMIWG) revealed the linkages between mining and extractive activities with spikes in violence against Indigenous women, girls, and gender-diverse people. The report includes five recommendations that are related to extractive and development activities to address the rights and safety of Indigenous women in mining territories. In this chapter, authors build upon the premise that mining companies have a responsibility to uphold Indigenous women's needs and wants through meaningful engagement that is consistent with the 2019 National Inquiry report. They emphasize that there are well-documented advantages to involving Indigenous women as significant rights-holders in projects. This chapter first examines the literature regarding Indigenous women's experiences with extractive mining projects in resource-based communities in Canada. The authors identify the context of gender and mining, including violence against Indigenous women. Second, they determine the extent and significance of Indigenous women's involvement in the mining sector. Third, this chapter explores opportunities and strategies that affect the wants and needs of Indigenous women that aim to counter racism, sexism, and misogynistic patterns observed within the mining sector. Last, highlighted is the relevance of these findings for a range of actors involved in policy, practices, planning, and corporate behaviours. Overall, this chapter finds that Indigenous women are essential actors at the nexus of mining companies and local communities. The authors believe that acknowledging this role can improve Indigenous women's realities and agency while contributing to the equitable development of mining economies in Indigenous communities.

Chapter 5

The mining sector has become something of a touchstone for the Indigenous (Sámi) People of northern Scandinavia. The region, one of the wealthiest and best-supported parts of the Circumpolar World, has developed its mineral resources more slowly than most northern areas in the past 40 years. Several long-operating properties, like the remarkable iron ore mine in Kiruna, have remained in operation, becoming icons of modernization and positive labour relations. Others, as is the norm with mining, worked through their life-cycles and closed, causing significant local economic and social dislocation. The Sámi

have rarely been actively engaged in the mining sector, save for as occasional opponents of proposed projects. In recent years, however, the governments of Norway, Sweden, and Finland have taken steps to revive the industry, leading to substantial debates between Sámi activists and the states. This chapter examines the historic relationships between Indigenous Peoples and the Scandinavian mining sector. Specifically, it reviews contemporary Sámi perspectives on the industry and related environmental considerations and examines government policies for Indigenous participation and consultation in the development of mining policy and the review/approval of specific projects. It also documents the significant Indigenous concerns about the proposed expansion of mining activities, including impact on reindeer herding, and the apparent hardening of government resistance to the extension of Indigenous rights in this area.

Chapter 6

Mining companies can provide opportunities to enhance the social infrastructure of local communities, but once mines are abandoned, corporate accountability to sustainable development is often neglected. Sipalay is a copper deposit in the southern region of Negros Island, Philippines. Interest in the copper deposits came as early as the 1930s but mining operations did not materialize until the 1950s. Residents who lived to witness the glory days of the mines would recall how “wealthy” their community was. Household income, as some Sipalaynons would claim, more than met their daily needs. The economic activities skyrocketed as the mining operations required more workers to answer the demand for expansion. As a result, the municipality was promoted to city status due to increasing populations and income generated from the mine. The mine provided electric and water services to the barangay; a term used to refer to the smallest administrative division in the Philippines. A school, named after the owner of the mines, was established and scholarships were offered to many. Infrastructure projects, funded by the mining company, were also developed to aid the local government units and nearby community. From a CSR standpoint, the Marinduque Mining and Industrial Corporation (MMIC), later Maricalum Mining Corporation (MMC), is lauded for its provision of social services and infrastructure to local barangays. However, throughout five decades of operation, the municipality has significantly suffered from the damages of numerous mining disasters. These disasters heavily impacted the livelihoods of farmers, yet MMIC/MMC failed to provide just compensation packages. Although the school continued to provide accessible education to the community, electric and water services were cut off when the mines closed, demonstrating that the gains derived from the mining operations were short-lived and unsustainable. It left the municipality with an abandoned mine site that brought about danger to the community, millions in unpaid taxes, and hundreds of unemployed and retrenched workers who remain uncompensated to this day. This chapter discusses the case of the MMIC/MMC operations in Southern Negros, highlighting the mine achievements and failures through the narratives of local interviews. This chapter aims to explore the main issues within MMIC/MMC’s abandoned mine sites and failed CSR efforts.

Chapter 7

When the uranium industry unfolded in northern Saskatchewan, Indigenous Peoples (First Nations and Métis) were largely bystanders to the development of a multi-billion-dollar commercial sector. The unequal distribution of the benefits of mining in the early years resulted in considerable Indigenous dissatisfaction and a desire for a greater role and better return for Indigenous communities. Local pressures, corporate concerns about workforce development, community relations, and Canadian jurisprudence regarding Indigenous legal and treaty rights, convinced the company to respond to First Nations and Métis demands. Over a 20-year period, the company and community partners restructured the flawed relationship, a process highlighted by the negotiation of substantial IBAs that transformed the place of Indigenous Peoples and communities in the sector. While major challenges remain, including those of vulnerability to global market forces, the Indigenous-Cameco relationship has enhanced employment and business opportunities, produced substantial community benefits, and ensured Indigenous communities a more substantial role in the long-term development of uranium in northern Saskatchewan. This chapter reviews the history of Indigenous-Cameco relations, current agreements, and the intersection of corporate and community aspirations for the economic development and environmental protection of the Métis and First Nations homelands.

Chapter 8

In Canada, industrial developments, and resource extraction, in particular, have been responsible for much of the landscape level change within Indigenous ancestral lands. As a result, Indigenous Peoples in Canada are not only increasingly vulnerable to a changing climate, but experience synergistic, cumulative effects due to extractive industries that operate predominantly within their traditional territories (Birch, 2016; Odell et al., 2018). This chapter explores the nexus of mining and climate change within the unique context of Indigenous communities in what is presently considered Canada, focusing on the province of Ontario (Odell et al., 2018). It reveals, in particular, critical barriers to climate change adaptation that impede efforts to build community capacity and resilience, as well as highlight strategies for Indigenous communities seeking CSR. However, we found that studies exploring this relationship between climate change, mining, and Indigenous Peoples were found to be scant in the context of Ontario, despite numerous studies of these themes independently and bilaterally. This chapter seeks to initiate a discussion around the complex intersection of these three themes, while exploring the role of CSR and other mechanisms used to uphold ethical mining practice principles within the context of our review. The chapter uses a novel conceptualization to structure our exploration of the literature and emerging research need.

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PART 1

Global Reviews



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1 CSR, SLO and local mining communities

John F. Devlin

Introduction

This chapter discusses relationships between local communities and mining companies with a focus on the period since corporate social responsibility (CSR) and social license to operate (SLO) became central to the debate over community-mine relationships. The history of mining development demonstrates recurrent local conflict. But in the 1990s, commentators began to suggest how mine-community relations could be improved through CSR and SLO.

The Emergence of CSR and SLO in Mining Discourse

Jenkins and Yakovleva (2006) assert that “the discovery, extraction and processing of mineral resources is widely regarded as one of the most environmentally and socially disruptive activities undertaken by business” (p. 272). Martinez-Alier has provided an extended analysis of conflicts arising from mining’s environmental impacts (2001). Violent confrontations have been recurrent throughout mining history primarily based in labour conflict. But over the past three decades, other sources of conflict have gained attention including “environment, human rights, identity, territory, livelihood and nationalism” (Bebbington et al., 2008, p. 901).

The discourse on CSR since the 1950s has suggested that firms should pay attention not only to their profit margin and shareholder interests but also to the socio-cultural context of their operations. Similarly, Carroll (1991) suggested that firms had legal, ethical, and philanthropic responsibilities. Dahlsrud (2008) analysed 37 definitions of CSR and found that they systematically presented some combination of 5 dimensions: economic, social, stakeholder, voluntariness, and environmental. Voluntariness here refers to the notion that CSR should be a choice rather than a requirement of the corporation, the 4 others being self-explanatory. Fordham and Robinson (2018) identified 38 meaning elements for CSR among resource sector stakeholders in Australia. In addition to Carroll’s 4 elements (economic, legal, ethical, and philanthropic), they add an “interaction” element focusing on the relations between stakeholders and encouraging communication, engagement, and participation. This fifth element is particularly important for local communities. The CSR literature is extremely complex and CSR does not

have any agreed fundamental meaning in the literature. In what follows we focus on issues related to the intersection of CSR, mining, and local communities.

International pressure on firms to expand their attention to CSR has been building for several decades. In 1976, the Organisation for Economic Co-operation and Development (OECD) adopted the Guidelines for Multinational Enterprises which encouraged corporations to incorporate social, human rights, and environmental considerations into the way they do business. In 2000, the OECD established a system of National Contact Points which provided a mechanism for raising concerns and mediating conflict among stakeholders when firms fail to conform to the Guidelines (OECD, 2011).

The 1987 report of the World Commission on Environment and Development (Bruntland, 1987) and later Agenda 21 emerging from the Rio Summit in 1992 raised the profile of social and environmental protection in the pursuit of sustainable development (UNEP, 1992). Thereafter, CSR discourse increasingly integrated ideas of sustainable development and the notion that firms should pursue a triple bottom line with attention to economic, social, and environmental goals (Crane et al., 2008). The World Business Council for Sustainable Development was created in 1995 made up of CEOs of major international corporations. In 1997, the Global Reporting Initiative was founded following public outcry over the environmental damage of the Exxon Valdez oil spill to create an accountability mechanism to ensure companies adhere to responsible environmental principles. Over time, the GRI standards have been expanded to include social, economic and governance issues (GRI, 2016).

Since the late 1990s, many professional associations, national bodies, and international groups have established codes of conduct, voluntary principles, and other standards that elaborate on CSR by specifying benchmarks for assessment and accountability (Zandvliet & Anderson, 2009). Some examples include the AA1000 Framework Standard issued in 1999 addressing the issue of sustainability assurance which provides a form of third-party assessment of claims about the sustainability of company actions. The definitive AA1000 Assurance Standard was published in 2003 and a Stakeholder Engagement Strategy was released in 2015 (Accountability, 2015, 2018). In 2000, the UN Global Compact was established to champion a principles-based business approach. The Compact presents ten principles encompassing human rights, labour, environment, and anti-corruption which member companies agree to follow.

In 2003, the Equator Principles were launched by the International Finance Corporation. The Principles addressed management of environmental and social risk in project finance. They provide financial institutions with guidance to support responsible risk decision-making and have been periodically revised and the current version was published in 2020 (Equator Principles Association, 2020). The Declaration on the Rights of Indigenous Peoples was passed by the UN in 2007 as a non-binding resolution delineating and defining individual and collective rights of Indigenous Peoples (United Nations, 2007). The Declaration asserted the principle of free, prior and informed consent before development can take place on Indigenous lands. In 2011, the Guiding Principles on Business

and Human Rights framework (“Ruggie Principles”) was adopted by the UN. These principles encouraged the development of standards of behaviour in relation to the impact of international corporations on the environment and local communities (United Nations, 2011). Taken as an overarching trend in international business discourse these frameworks suggest a sustained effort to improve the behaviour of international companies in relation to a variety of stakeholders including local communities.

The CSR discourse in mining began in the early 1990s and accelerated thereafter (Dashwood, 2012; Sagebien & Lindsay, 2011). Initial concern by the mining industry about local community acceptance of mining was stimulated by the closure of the Panguna copper mine, Bougainville, Papua New Guinea in 1989 after civil unrest made operations too dangerous for staff (Filer & Le Meur, 2017). The term “social license” was first used in 1997 by James Cooney, Vice President of External Relations for Placer Dome Inc. which was a partner in another PNG mine, the Porgera Joint Venture (PJV) gold mine. Placer Dome was also an owner of Marcopper in the Philippines and had come under intense public criticism after the tailings spill in Marinduque in 1996. Cooney likened community opposition to government refusal to issue permits and in late 1997 used the metaphor of the social license in discussion with World Bank officials who then used the term at a conference on mining and the community in Quito, Ecuador, in early 1998. Thereafter, the term became common parlance in the mining industry (Boutilier, 2014; McMahon, 1998). A social license “can be said to exist when a mining project is seen as having the broad, ongoing approval and acceptance of society to conduct its activities” (Prno, 2013, p. 577). A SLO has come to be understood as an important benefit of CSR, one way in which a company can secure good relations with local communities (Santiago et al., 2021).

In 2002, the International Institute of Environment and Development published the landmark report *Breaking New Ground: Mining, Minerals and Sustainable Development* (Starke, 2002). Also in 2002, the Extractive Industries Transparency Initiative (EITI) was launched during the World Summit on Sustainable Development in Johannesburg (EITI, 2019). The EITI provided a global standard for the governance of oil, gas, and mineral resources with a focus on how governments use the financial resources created through oil, gas, and mineral exploitation. In 2003, the World Bank published *Striking A Better Balance-The World Bank Group and Extractive Industries: The Final Report of the Extractive Industries Review*. In 2010, the International Council on Mining and Metals published the *Good Practice Guide: Indigenous Peoples and Mining* with a second edition in 2013. Through these publications and initiatives, the CSR discourse was particularized to the mining sector and the issue of SLO was established.

The recommendations arising from these frameworks and standards for how mining companies should manifest CSR and gain SLO in relation to local communities generally encourage strong citizen participation. Companies are encouraged to engage with communities early and to build and maintain community relationships over the life of mining projects including after mining projects

close. Hamann (2003) suggests affected groups should be involved in the setting and evaluating of CSR objectives. Nelsen (2006) suggests that seeking a SLO can create “a forum for negotiation whereby the parties involved are heard, understood and respected” (p. 161). Esteves (2008) encouraged the involvement of communities prior to the selection of company CSR activities so that the community is not just used as a source of information but has direct involvement in the design and delivery of CSR strategies. For Indigenous communities, engagement requires free, prior and informed consent for exploration and mine developments on their territories (ICMM, 2013; Macinnes et al., 2017). Local communities should be encouraged to retain a sense of ownership and custodianship over the land on which the mining is taking place (Akiwumi, 2014; Amos, 2018; Calvano, 2008). The literature also suggests that a developmental purpose should permeate CSR programming. Companies should nurture partnerships with community organizations and government to deliver on development promises to help ensure appropriateness, successful delivery, and the sustainability of programs and benefits (Devenin & Bianchi, 2018; ICMM, 2012).

Mechanisms for engagement can include community meetings, liaison committees, and working groups to facilitate information exchange, identify community needs, and approve spending activities (Mayes, 2015). Formalizing community participation can include signing Memoranda of Understanding (MOU) between the mine and communities (Banks et al., 2013). Community development or impact-benefit agreements can solidify commitments made by companies to local communities (Esteves & Barclay, 2011; McMahon, 1998; O’Faircheallaigh, 2013). Such agreements may include commitments for monetary payments, local employment, local procurement opportunities, training and education opportunities, and local infrastructure development (Szoke-Burke & Werker, 2021).

Within these arrangements, feedback mechanisms are created so that companies regularly receive, evaluate, and respond to community concerns (Prno, 2013). Additionally, the mechanism needs to be sufficiently clear to be understood by the community and also robust enough to handle complex grievances and conflicts. Any such strategy also needs to be legitimate, accessible, predictable, equitable, transparent, a source of learning, and based on engagement (IRMA, 2016).

Forms of engagement can also include participatory monitoring processes (WRI, 2009). Assessments of the sort required by environmental and social assessment legislation can help generate early engagement with communities. Such legislation can aid in the identification of individuals and organizations to be consulted so that community needs and aspirations can be identified as baseline data is collected, changes predicted, and options examined (Esteves et al., 2012).

Such engagements may be bi-sectoral or multi-sectoral involving companies with some combination of communities, NGOs, and government representatives. Engagements can be formalized as ongoing organizations such as trusts or foundations or as specific projects involving companies with some combination of communities, NGOs, and governments (Warhurst, 2001). Companies are encouraged to be transparent in their relationships with communities. Sufficient information needs to be provided to those affected by company decisions and actions so

that affected parties can understand and that can serve as a guide to community action (Browne et al., 2011; Extractive Industries Transparency Initiative, 2019). Mine-local community relationships should, as a result, generate trust. The mining company needs to be perceived as trustworthy in order for their presence to be not only accepted but also approved of by the community (Amos, 2018; Boutilier, 2014, Browne et al., 2011). Other principles include fairness (Moffat & Zhang, 2014) and that a culture of social responsibility should be communicated and practiced throughout the company (OECD, 2011). These principles of engagement, partnership and transparency have been promoted on both ethical and instrumental grounds. While firms have been encouraged to act from an ethical concern for social responsibility, the principles are also presented as having practical benefits. This is referred to as the business case for CSR and is dominant in the thinking of company employees (Fordham & Robinson, 2018).

Community resistance to mining can be costly for companies. There are many cases of mining developments being delayed, interrupted, and even abandoned due to public opposition. Some case studies include Bangladesh (Faruque, 2020); India and Chile (Banerjee et al., 2021); and Argentina (Mohle, 2021). Frank et al. (2014) identify costs of up to \$20 million per week due to production delays from community opposition. Zandvliet and Anderson (2009) suggest that when advocacy groups apply pressure to financial institutions that support CSR and related principles, companies may find that sizable investment funds are withdrawn or withheld from their projects. (Zandvliet & Anderson, 2009). Chong and Haslam (2020) demonstrate that the share values of mining companies tend to fall when local conflicts gain international attention due to a devaluation of available deposits and declining company reputation.

Early engagement of local communities in project design is more likely to garner consent and avoid costs associated with local resistance (AccountAbility, 2015; WRI, 2009). Successful relationships with communities are also more likely when impacts are collaboratively identified and plans and programs are established, including action plans, monitoring and evaluation criteria, and decision-making processes (Devenin, 2021). Engaging with Indigenous Peoples can also bring “knowledge of local ecosystems and sensitive sites, biodiversity management, development of environmental values within the organization, and support in environmental monitoring” (Boiral et al., 2020, p. 10).

In engaging and developing relationships with communities, trust has utility—companies are never going to be perfect actors in CSR development and implementation, but establishing a relationship of trust can help smooth over difficulties (Banks et al., 2016). Moffat and Zhang (2014) found in Australia that trust in the mining company was the most direct predictor of community acceptance. Trust, in turn, was affected positively by community perceptions of the quality of contact between the mining company and the community and by perceptions of the fairness of company procedures.

Humphreys (2000) noted that “timely attention to community concerns” facilitated effective implementation by Hamersley Iron of the Yandicoogina iron ore project in Western Australia “a process which involved, amongst other things,

the signing of the Yandicoogina Land Use Agreement in 1997” which helped Hamersley bring on the mine US\$155 million under budget and five months ahead of schedule (p. 129). Early start-up had the additional bottom-line benefit for the company of permitting a rapid production ramp-up in a rising iron ore market (Humphreys, 2000). Ofori and Ofori (2019) describe how Newmont’s success in building trust facilitated community acceptance of a new mine and the community was willing to support Newmont’s application despite efforts by anti-mining NGOs to reject the project.

CSR and SLO Initiatives

The discourse on CSR and SLO has created high expectations. Communities look to mining companies to provide local employment and development as well as social services such as education, health care, roads and electricity (Hilson, 2002; Ofori & Ofori, 2019). Garvin et al. (2009) found that in Western Ghana communities expected mining companies to share earnings, be good corporate citizens, and create a liaison committee for meetings and consultations. Amos (2018) similarly found that Ghanaian community members expected CSR programs that were philanthropic, environmental, sustainability-related and attentive to education, health care, employment of local residents, poverty alleviation, and support for local enterprise development. This study concluded that host community expectations were incentivized by CSR rhetoric beyond other factors.

The literature does offer many examples where CSR and SLO principles have been put into practice. Many of these emerged even before the CSR/SLO discourse had been established. During the 1980s in PNG Bougainville Copper Limited (BCL) paid royalties to the regional government and to local mine lease landowners. BCL made payments for damage to land, buildings and crops, paid occupation fees to heads of land lease families, provided new houses for some families, paid some relocation costs, paid compensation for lost fish populations in mine-impacted creeks and rivers, held public hearings to discuss compensation arrangements, and created a social inconvenience compensation to be paid into a landowner-controlled trust fund (Regan, 2017). The Rio Tinto Group created partnership agreements, trusts, and foundations to promote education, health care, and small businesses around their mines in Africa, Asia, and Latin America. Under its Business with Communities Programme, Rio Tinto has supported joint projects with NGOs, educational and research institutions, and local businesses, as well as community-based groupings. They have partnered with NGOs such as the World Wide Fund for Nature Australia in 1999 to conserve Australian frogs and their habitats (Humphreys, 2000).

Bonnell (1999) describes a range of engagements undertaken by the PJV mining company across the Porgera valley. Beginning in 1988, the PJV engaged in a wide range of community-oriented initiatives. Relocation houses were built and compensation payments for land were made. There was road construction and construction of footbridges over rivers. There were a variety of health initiatives including maintenance of a health centre and a PJV medical officer providing

some medical services to the local community. Later, there was construction of a hospital and initiation of a health education program and medical drugs were supplied. Educational initiatives included funding for classrooms and teachers houses, library books, school prizes, school improvements, and minor maintenance and the provision of water supplies. Other educational initiatives included later construction of an international standard primary school; financial assistance for high school education; financial support to the Porgera Vocational Centre; a scholarship program for college studies; and financial support for adult literacy. Community facing units of the PJV included: the PJV Community Affairs Division with a staff of 85 in mid-1993; PJV Women's Division; and a PJV Youth Coordinator. The PJV provided a Community Facilities Grant to the Porgera Development Authority which was a fourth level of government created by the national government to manage development affairs in the Porgera Region.

Banks et al. (2013) found among four mining sites in PNG that corporate community development initiatives included law and order initiatives, support for local level governance, health infrastructure, health services, women's organizations, and cultural heritage programs. Farrell et al. (2012) describe the land lease agreement between Anglo Platinum and traditional leaders and several villages near Mogalakwena South Africa signed in 1993. The company agreed to pay a lump sum, an annual rental fee and establish a trust for community development. Patnaik et al. (2018) describe the community engagement programming of Newmont Ghana Gold Limited (NGGL) in very positive terms based on interviews with community members. The engagement system includes the Ahafo Social Responsibility Forum which represents "traditional leaders, local councils, advocacy groups, non-governmental organisations, and the management of NGGL" (p. 612). The Forum advises the Newmont Ahafo Development Foundation (NADeF) launched in 2008. The NADeF structure is made up of ten Sustainable Development Committees which are community-based teams, one for each of the ten Ahafo communities affected by NGGL's mining activities. The SDCs include local government representatives. The NADeF funds projects and also invests in an endowment fund to be used after the closure of the mines.

Devenin (2021) describes two collaborative community development programs that involve multiple mining companies, local governments, and community organizations that have committed to long-term community development in the Antofagasta region of Chile. Newmont in Ghana has paid generous compensation to farmers for up to 15 years of crops lost to mine exploration activities and operations. Newmont also financed social development projects selected with community input, and made payments to traditional chiefs (Ofori & Ofori, 2019).

Banks et al. (2013) report on company health initiatives in Papua New Guinea where the Lihir Medical Centre, the Tabubil (Ok Tedi) and Porgera Hospitals funded by mining companies "have provided access to much higher quality health services for the surrounding communities than were available prior to the mine" (p. 492). Amos (2018, p. 1187) reported "many constructive relationships" between communities and companies in Ghana including capacity-building opportunities for the youth, local enterprise/skill development programs, and merit-based

scholarship packages for local students. Browne et al. (2011) found that in Western Australia, the Ravensthorpe Nickel Operation financially supported the start up of a number of businesses which could provide local goods and services for mine contractors and the residential mining community and also attract a number of other entrepreneurs to establish businesses in the mining region.

In Northern Europe, Koivurova et al. (2015) reported on community engagement processes and various forms of community investment in mine-affected communities near mines in Norway, Finland, Russia, and Sweden. Initiatives included creation of a local resource group involving local environmentalists, businesses, municipal authorities, and others; support for youth, sport, and cultural activities, health services; education and research; and consultations with local groups such as reindeer-herders.

Since the late 1990s, mining firms have highlighted such initiatives in their CSR and sustainability reports which serve to provide assurances to their shareholders and international stakeholders that the companies have good relations with local communities (Asmeri et al., 2017; Jenkins, 2004). Yet, CSR and sustainability accounts have been found to be unreliable (Kirsch, 2010). Bice (2014), for instance, found that “although many major resource corporations openly insist that procuring and maintaining a social license is essential to their operations, in practice, the criteria defining these metaphorical licenses remain relatively murky” (p. 63). Companies may present a public face that is more conciliatory and community-focused and even report successful relations which closer investigation belies. Saes et al. (2021) documented many contradictions between CSR reports published by Vale and alternative local sources. As Yap and Ground (2017) argue, the most fundamental ethical principle for mining corporations in relation to local communities is to stop doing harm. The harm dimension is not often addressed in corporate CSR reporting.

Even where CSR programs have been put in place and SLO appears to be achieved, there is still the question of the actual impacts of these programs. Jenkins (2004) suggested that assessments be undertaken to understand if “community development programmes implemented by mining companies actually deliver socially responsible outcomes, or whether they simply create mechanisms of dependency that can be used to control communities” (p. 32). Several studies have reported on the limited number of peer-reviewed papers on the longer-term developmental impacts of mining on local communities (Banks et al., 2016, 2017; Devenin, 2021; Kemp & Owen, 2013; Owen & Kemp, 2013; Solomon et al., 2008).

Community Dissatisfaction Remains

Despite growing CSR/SLO programming, problems clearly persist. In fact, the International Council on Mining and Metal found a progressive increase in the number of company-community conflicts between 2002 and 2013 (ICMM, 2015). Displacement and forced relocation continues to be a source of conflict. In 2008, Anglo Platinum’s Mogalakwena mine in South Africa’s Limpopo Province gained international attention for the violence and accusations of human rights

violations that erupted in relation to relocation of populations for mine expansion (Farrell et al., 2012). Opposition by local Mayan communities to the Fenix Mine in Guatemala resulted in several instances of protest, and in September 2009, several community leaders were killed and others injured in a conflict between community members and company security personnel (Imai et al., 2014). In Peru, there have been deaths during protests at several mines (Gamu & Dauvergne, 2018). Newmont halted operations and withdrew from its Mina Conga project in Cajamarca, Peru after Indigenous protests (Macinnes et al., 2017). In Tanzania, Acacia Mining engaged in confrontations with local communities and called upon government and private security forces to contain local protests (Selmier & Newenham-Kahindi, 2021). Conflict from Indigenous Peoples' resistance to mining has also been reported in the USA, Philippines, Colombia, India, and Canada (Macinnes et al., 2017).

A major source of community conflict arises from community concern over the environmental problems generated by mining. The tailing pond for the Imperial Metals Mount Polly mine in BC, Canada burst in August 2014 releasing 10 million cubic metres of water and 4.5 million cubic metres of silt into Polley Lake prompting drinking water warnings and concern among local Indigenous community members (Petticrew et al., 2015). In November 2015, the Fundão tailings dam burst in the city of Mariana in Brazil. Nineteen people were killed and there was extensive damage to fauna and flora (Demajorovic et al., 2019; Lyra, 2019). On January 25, 2019, Brumadinho dam also in Brazil ruptured releasing approximately 12 million cubic meters of tailings over houses in rural areas killing over 200, dislocating hundreds, and severely affecting the downstream environment (Lumbroso et al., 2021). Water quality concerns arise repeatedly due to water usage and pollution by mining operations. These are reported in Chile (Odell, 2021); Bolivia (Mulhern et al., 2020); Ghana (Andrews & Essah, 2020; Garvin et al., 2009), Peru (Gamu & Dauvergne, 2018), Finland (Mononen & Bjorn, 2020).

In 2014, a bauxite mine was stopped in the Niyamgiri mountain of India after ten years of resistance. The Indian Supreme Court ruled that the bauxite project required the consent of the tribal communities that would be impacted by the mine. In August 2013, all 12 local councils voted against the project and in January 2014, the Ministry for Environment and Forests ruled that the mining project would not proceed (Banerjee et al., 2021). Barrick Gold's Pascua Lama project in Chile was permanently shut down in 2018 after persistent legal challenges by local and national activists. Chile's Environmental Court upheld the decision in October 2018 and in September 2020 Barrick finally announced that it would not appeal the decision (Banerjee et al., 2021).

Attitude surveys often reflect community scepticism of CSR/SLO programs. Mayes (2015) found that in Western Australia, where BHP-Billiton promoted what appeared to be a successful SLO program, local interviewees expressed resignation rather than satisfaction about the company's local impacts. Walsh et al. (2017) found negative perceptions of a proposed mining project in Australia arose from procedural factors such as timing and consistency of consultations and lack of two-way dialogue which were reinforced by mistrust of the company and its

representatives, a sense of community disenfranchisement, and failure to meet community expectations. Viveros (2016) reports that in Chile perceptions of corporate CSR by community representatives, NGOs, unions, and government representatives revealed that these stakeholders perceived social and environmental impacts negatively and rejected the notion that mining's economic benefits offset the negative social and environmental impacts. CSR was perceived by many as mere rhetoric or a marketing campaign.

Such dissatisfaction has multiple sources. For Indigenous communities, failure to recognize traditional land title is a fundamental injustice and a source of ongoing conflict (Whiteman, 2009). Expectations about employment opportunities created during the initial stages of mining development are often disappointed leading to dissatisfaction with the mine (Akiwumi, 2014; Ofori & Ofori, 2019). Inadequate compensation for economic losses can create conflict (Calvano, 2008). In November 2005, police officers in the Birim North District of Ghana's Eastern Region shot and killed a resident and injured three others during a protest against Newmont Mining Company's proposed method to compensate local farmers for economic losses.

Emel et al. (2012) report that in Tanzania AngloGold Ashanti failed to provide the livestock watering points that were promised; animals died, and the compensation offered was considered inadequate. A similar disagreement over livestock grazing land and watering spots was found in Buzwagi, the Barrick mine near Kahama, Tanzania. Emel et al. (2012) highlight that the Lake Victoria goldfields of Tanzania project reports sought to make community projects seem better than they were with many local people disappointed, with paltry benefits "compared with the wealth being taken out of the area and the environmental and social costs borne by local people" (p. 258). Hamann (2019) describes how a company may fail to follow through on commitments made such as the construction of housing for workers.

Communities may perceive companies as taking a short-term or inconsistent position in their community relations. Even good programs that are not maintained or that the company seeks to offload onto the local or national government or onto the community itself will diminish the perceived success of the program and the reliability of the company in the eyes of the community. Browne et al. (2011) describe how community trust was disappointed when the Ravensthorpe Nickel Operation in Western Australia was cancelled only 9 months into what the company projected would be a 25-year lifespan. Devenin and Bianchi (2018) report that in Quispisca, Chile community beneficiaries declared that a program that had been running for four years had been progressively declining.

There can be difficulties with community representation. In Bougainville, the initial one-time compensation payments between the mining company and local landowners benefited older landowners but left younger landowners out. It was these younger landowners who led the violent resistance that eventually closed the mine in 1989 (Regan, 2017). There also may be tensions between traditional and postcolonial structures or between designated representatives who are not accepted as representative by segments of the community (Akiwumi, 2014; Farrell

et al., 2012). Some within the community may see mining initiatives generally as culturally inappropriate. For example, Akiwumi (2014) describes how in Sierra Leone the mining company is perceived as an “uninvited stranger” and thus evokes resistance from local traditionalists. Devenin and Bianchi (2018) report on company supported agricultural programs in Chile that introduced completely new ways of doing things and ignored traditional practices.

Many CSR programs have contestable development-related benefits with potentially diverging understandings of development between affected communities and corporate decision-makers (Banerjee, 2001). Banks et al. (2017) found that in Papua New Guinea after the Ok Tedi mine has been operating for more than 30 years, the Porgera mine for more than 20 years, and the Lihir mine for almost 20 years, their community development programs demonstrated limited successes. Devenin and Bianchi (2018) found in Chile that mining CSR programs failed to contribute to “real community beneficiary needs”; failed to adjust to the “socio-cultural characteristics of the beneficiary group”; and failed to “ensure sustainability in the long run” (p. 866). For example, entrepreneurship programs for women resulted in accumulations of debt leading to the eventual collapse of their business (Bianchi & Devenin, 2018). Kasimba and Lujala (2020) report on community perceptions of two mining-financed trust funds in Ghana,

(A)though the community members considered some aspects of the trust funds positively, the trust funds’ overall objectives to promote meaningful participation of local community members and contribute to local development had not been met. Inadequate planning and needs assessments, and inflexibility in externally framed CSR practices that were unfavorable to the operational contexts, were among the key factors undermining the success of the trust funds.

(p. 1386)

Banks et al. (2013) suggest that while mining companies may engage in a variety of development initiatives, these efforts may be diminished by the local unintentional impacts of the mining project. For example, creating local employment increases cash flows into the community and will appear as a benefit. But increased incomes can result in negative impacts such as increased arrival of outsiders looking for work, increased alcohol and drug consumption, gambling, prostitution and violence. Livelihoods shift and integration into the cash economy increases. Increased availability of cash can push up prices for many important items including food, housing, and land. Those who do not benefit from increased incomes actually fall further behind due to inflation and loss of access to previously affordable items. Programs seeking to offset these effects are unlikely to reach the scale needed to overcome them. The forces of change and the geographic scope may be much stronger and more widespread than the programs the mining companies offer in response (Bonnell, 1999).

A broader contextual factor is the general level of economic underdevelopment in many of the regions where mines are located. Many community problems

exist independently of the mining project and are not likely to be solved by the economic activity, employment or the CSR/SLO efforts generated by the mining activities. Despite their size and resources, the companies have a limited time horizon and thus limited interest in shaping the longer-term trajectory of community social and economic change around their operations. Many mining operations are in remote areas where governmental services remain weak. Local employment and community development programs associated with the mining operation may flounder when social services such as education and health have been neglected by government. As a result, community members are unable to take advantage of the employment and business opportunities the companies provide. Langton and Mazel (2008) found this among Aboriginal communities in the Pilbara region of Western Australia. Dobele et al. (2014) demonstrate how in Australia the local network of stakeholders changed its perceptions of the company over time when the company failed to engage with the issues the network was discussing. As Trebeck (2008) suggests "...what companies are prepared to provide and what communities demand (or need) are unlikely to ever be completely reconciled" (p. 18). Local communities thus have reasons to be sceptical about the social responsibility of mining firms, to question the willingness of companies to engage equally with communities, to doubt the overall long-term benefits that mining might bring, and to be apprehensive about the social and environmental harms that mining might generate and leave behind. Hence, many in the community may continue to be dissatisfied despite the CSR and SLO efforts mining companies make.

Mining projects unfold in complex social contexts and can affect social, cultural, geographic, economic, and political conditions across extended mining spaces (Devenin & Bianchi, 2019). There are many local actors and there is significant diversity in their relationship to the mining company and to each other. Hamann et al. (2005) provide a general model of how complex the local context can be in Africa. They claim that network complexity can be found in traditional and religious leaders, spiritual customs, traditional land tenure systems, traditional allocations of access to resources, local government councillors, local policies, plans and budgets, local historical disputes, multiple civil society groups, NGOs, community-based organizations, trade unions, ad hoc groups, local media, other companies, international agencies, and national government agencies. Within this context, company efforts generate differential responses among such a diverse group of stakeholders and rights holders owing to the diversity of attitudes and values within the network. Filer and Le Meur (2017) capture this complexity in a "rectangular model" with four categories of institutional actors: corporate, governmental, local, and a fourth estate of NGOs, journalists, and academics. Each of these groupings manifests internal complexity and cross-cutting influences. Bebbington et al. (2008) note that within communities there may be "longer-standing rivalries and differences that mining serves to amplify" (p. 906). Bourne and Snead (1999) suggest that multiple community microcultures may react differently to the same event. Welker (2009) describes how in Indonesia local elites shifted from attacking Newmont mining in order

to leverage more community development spending to later defending the mine against anti-mining NGOs. There can also be important regional complexity where many communities (towns or villages) within a mining region will not experience the same types or levels of impact (Devenin & Bianchi, 2019). Regan (2017) describes how affected communities in Bougainville were differentiated into those that experienced relocation for mining works, those near the mine but not displaced, and those more distant downstream from mining operations. Kapelus (2002) describes how Richards Bay Minerals in South Africa focused its engagement on the Mbonambi Tribal Authority but did not engage with the other 69 tribal authorities of the larger Uthungulu district. Mulhern et al. (2020) describe the differential treatment of communities closer to and more distant from the Kori Chaca mine near Oruro, Bolivia. More proximate communities received substantially more benefits while more distant communities who felt the negative impacts especially on water quality but were not recognized or compensated. Odell (2021) describes how environmental costs were displaced from one community to a smaller and politically weaker community in Chile thus generating inter-community conflict.

There are thus many reasons why community dissatisfaction with mining companies might emerge. Calvano (2008) points to stakeholder power inequality; stakeholder perception gaps; and cultural context. Zandvliet and Anderson (2009) suggest that dissatisfaction can arise from how community benefits are created and distributed, how the company communicates with communities, and how conditions evolve that lie beyond the immediate operations of the mining project.

Explaining CSR/SLO Behaviour in Mining

How can such diversity in CSR/SLO outcomes be explained? Why do companies sometimes provide good CSR/SLO programs and other times do not? Owen and Kemp suggest that companies often see CSR as a pragmatic approach to risk management or engagement that is “crisis driven”. SLO is embraced to ensure that “project risk is minimized and production is not interrupted” (Owen and Kemp, 2017, p. 24). Owen and Kemp (2013) suggest that “the mining industry’s dominant risk management orientation limits its ability to formulate a collaborative long-term development agenda” (p. 30). There is no reason to expect that shareholder interests can be maximized while the interests of other stakeholders are also maximized. Simply put: for private sector firms, profit is the imperative while CSR/SLO is only a means to that end.

Campbell (2006) suggests that,

Corporations are more likely to act in socially responsible ways the more they encounter strong state regulation, collective industrial self-regulation, NGOs and other independent organizations that monitor them, and a normative institutional environment that encourages socially responsible behavior.

(pp. 934–935)

All of these factors can be found to varying degrees across the global mining sector. A model of countervailing power provides a helpful explanatory base (Owen & Kemp, 2017). All actors implicated in a mining development have some degree of power: financial, regulatory, legal, moral, discursive, and disruptive. Different actors can mobilize their power as a mining project moves through the cycle of exploration, design, regulatory approval, construction, operation, and closure. Where pressure is weaker, companies are more likely to attend to the foundational business principles of profitability and shareholder value and to limit their CSR/SLO activity since it has limited practical impact on the evolution of the project. Governments are often absent from the sites of mining activity (Bainton & Skrzypek, 2021) but if public and government pressure increases, companies are more likely to allocate more resources to managing such pressure including through CSR/SLO initiatives. This dynamic begins with the initial steps of exploration. Legislation in most countries requiring environmental and social impact assessments before mining developments are approved has forced an increase in community engagement. Once local communities are aware that a mine has been proposed, they can begin to bring their own forms of power to bear—seeking to pressure the company and the government towards their preferred resolution: either to stop the proposal or protect their interests and to gain benefits from the project. Community rejection leading to conflict can begin at the exploration stage or at any time thereafter. A more moderate dynamic may see the local community make inquiries, seek engagement and negotiate benefits in which case an SLO will appear to have been achieved. But if commitments are not met or negative impacts emerge after projects have moved into the construction and operational stages, the SLO may erode and new conflicts may emerge.

It is possible that companies are learning from past difficulties. Rio Tinto and Placer Dome appear to have learned from the closure of the Bougainville mine in 1989. Newmont in Ghana pivoted towards more community engagement after difficulties in Peru and Indonesia (Patnaik et al., 2018). It is also possible that governments will play a role in driving companies towards the implementation of their CSR/SLO commitments (Andrews & Essah, 2020). After community conflict and international attention, the Tanzanian government put pressure on Barrack to improve its behaviour in the Lake Victoria region which resulted in a reorganization of operations, restructuring of ownership, increased community engagement, and a formal agreement with the Tanzanian government (Newenham-Kahindi, 2011; Selmier & Newenham-Kahindi, 2021). But there appears to be limited evidence for any general global shift from corporate-government alliances to local community-government alliances. Potential revenues and investments maintain the interest of national governments in hosting large mines.

Conclusion

The discourse on CSR and SLO calling for corporate behaviour change over the past several decades has grown significantly and there are now many examples of CSR/SLO efforts in the mining sector. But mine-community conflicts continue.

The literature reviewed here suggests multiple sources of conflict. Exploration is initiated without sufficient preliminary negotiations; companies often promise too much in the early days of mine development and may shirk or deny their social and environmental responsibility as a project moves into the construction and operational phases. When companies do engage with local communities, they often seek to limit the scope of their responsibility and fail to appreciate the complexity of the processes that can generate community dissatisfaction. The creation of some benefits for some local actors is not enough. The benefits must be desired, widely and justly distributed, sustained during the life of the mining project, and continue after mine closure. SLO can also be withdrawn at any time as problems emerge. Shifting CSR/SLO programming to local decision-making institutions involving local community representatives along with governmental and company representatives and well-funded from mining revenues appear to offer better outcomes for local communities. But such engagement must be ongoing. Problems that emerge after a mining development is approved by regulators also need to be addressed. Long-term community engagement is necessary if conflict is to be avoided over time.

For communities, this review suggests that there are a variety of approaches that can form the basis for engagement and for guiding negotiations with mining companies. Demands for prior consultation, for more mining revenues devoted to local activities, distribution of more benefits, better institutionalized decision-making procedures, a wider vision of the developmental context, and a longer-term commitment to development goals are all issues that can be raised by communities and may improve outcomes. Formal community development agreements with mining companies may often be appropriate. But continuous vigilance through monitoring of company actions and impacts and continuous voicing of concerns will be necessary. Expecting companies to “walk the talk” of CSR/SLO rhetoric is less likely to be successful if local communities do not have the capacity to challenge mining impacts and corporate actions. Community capacity development is thus important. Community development initiatives can seek to build capacity for alliances within each affected local community and between the many different affected communities in each mining region. Such organizational efforts are not likely to be initiated by the companies or by national governments, they must come from civil society locally or through national and international NGOs. Governments can help through requirements for community engagement in managing the mine-community relationship from initial design through construction, operation, and shut down but evidence of government commitment to such efforts is limited. Maintaining alliances with actors outside the community including NGOs, civil society organizations, international agencies, and governments is also important.

As communities push their demands, they can hope for a triangulation of pressure that will lead to beneficial action. The possibilities for better outcomes are clear. But despite the discourse on CSR and SLO and the opportunities mining projects create, local communities face an ambiguous economic, social, and environmental future as multinational mining corporations push into ever more

remote areas in response to rising global demand for the extraction, processing, and removal of mineral resources.

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2 Applying corporate social responsibilities

IBAs and mining within the traditional territories of Indigenous Peoples

Ken Coates

For hundreds of years, mining was one of the highest-profile, economically important and socially destructive elements of the global expansion of Europe and other colonial regions. The occupation of Central and South America in the 16th century was driven, in large measure, by the search for minerals and precious gems. The French exploration of North America focused on the search for more diamonds (which actually proved to be quartz crystals), just as British expeditions to the Arctic hoped to discover new deposits of gold (soon shown to be valueless iron pyrites). And so it continued for generations, from discoveries of iron deposits in Sweden, placer gold fields in California, Australia, and the Canadian North, hard rock gold mines in South Africa, and hundreds of other properties around the world. In almost all cases, these developments took place on the traditional lands of Indigenous Peoples, often with destructive impact on the cultures, economic foundations, and societies of the original inhabitants (Coates, 2004).

The intersection of mining and Indigenous Peoples is one of the dominant themes in the western and industrial occupation of traditional Indigenous lands. Conflict dominated much of the history of mining, but in most instances, the arrival of hundreds and even thousands of miners and large commercial operations quickly pushed Indigenous Peoples to the geographic margins. Early mining proceeded with little knowledge of and less concern for the long-term environmental impact of extractive activities. Not until the 1960s and 1970s did governments, the general public, or companies pay much more than a modicum of interest to the impact of mining on nearby Indigenous communities.

Circumstances changed slowly, largely in response to the political mobilisation of Indigenous Peoples and their allies in the environmental movement, the gradual and Nation-specific recognition of Indigenous and treaty rights, and the emergence of corporate social responsibility (CSR) as a prominent part of the commercial landscape. The public perception of mining shifted dramatically, from a widely accepted intervention that brought development to districts hitherto disconnected from the industrial/market economy to an intrusive commercial expansion that brought environmental devastation, social disruption while enriching investors significantly. Mining sites from the Amazon and the outback of Australia to the Canadian North became the focus for contestation and conflict.

This chapter argues that the 21st century has seen a convergence of three historically antagonistic forces—Indigenous rights and aspirations, government social and environmental priorities, and corporate interests and management priorities—that produced intense conflict over mining and then converted these challenges into the foundation of mutually-beneficial arrangements. The transition has not been uniformly successful, working best in the industrial democracies and less effectively in developing nations that are unable to sustain the rule of law. Indigenous communities have been learning from and about each other's relationships with mining companies and those mining companies, many with extensive international operations, have been developing best practices in community relationships and applying them in different cultural settings. This chapter assesses the changing relationships between mining companies and Indigenous Peoples, considering the practical manifestations of corporate social responsibility (CSR) and impact benefit agreements (IBAs). With mounting pressure to expand mining globally, the ability of Indigenous communities, mining firms, and governments to find common cause and work towards mutually satisfactory arrangements that allow environmentally-sound projects to continue is of paramount importance.

Literature on Indigenous Peoples and Mining

Scholars, who had largely ignored the economic and commercial development of the global mining industry, developed strong interest in Indigenous protests and the socio-economic impact of mining. The more activist, engaged, community-based scholarship of the 21st century lent itself to the study of the effects of mining and, logically, to the role of corporations and their relationships with Indigenous communities. The emergence of CSR as a central theme in corporate operations has, likewise, attracted considerable scholarly attention. At the root of this issue, scholars and analysts are attempting to determine an appropriate set of relationships between Indigenous Peoples and mining companies, searching for solutions that respect Indigenous traditions and rights, honour existing treaties and/or government commitments, permit the careful and environmentally sound development of the resource and prevent or mitigate major disruptions. Much of the literature has an activist edge, often critical of the mining firms, and focused on supporting Indigenous communities.

Scholarship on mining impacts upon Indigenous Peoples documents complex outcomes, ranging from active participation and substantial returns to Indigenous communities to human rights abuse, environmental degradation, climate change, and the reproduction of social inequality (O'Faircheallaigh, 2010). The conflicts and crisis of the past often play a crucial role in shaping contemporary relationships. Much of this scholarly attention focuses on the political economy of extraction, which is critical of the mining industry and the socio-cultural impacts that often arise from extractivist economic policies (Horowitz et al., 2018).

Resource extraction is often historically associated with human rights abuses that include child labour, expropriation of Indigenous territories, violent conflict, and even murder (Arbeláez-Ruiz, 2022). These abuses have taken place both in

politically stable and unstable nations. The occurrence of human rights abuses appears to be less dependent upon the whims of any mining corporation than it is on the regulations that individual nations impose on their extractive industries (O'Faircheallaigh, 2013). Unfortunately, there are many countries that either do not have regulations and/or do not have the capacity to enforce those regulations.

Considerable scholarly attention has focused on the relationship between the state, Indigenous Peoples, and the use of regulations to reduce exploitation (Lea, 2012; Sieder, 2013; Spiegel, 2012). In both the scholarship and on the ground, there is an increasing emphasis on mitigating the negative impacts of extraction through the development of sustainable mining practices and improved partnerships between Indigenous Peoples and mining corporations and between Indigenous Peoples and the state. The historical pattern in which Indigenous interests in areas under development were consistently ignored, has begun to change in a growing number of nations.

The Growth and Challenges of Resource Extraction

The acceleration of global industrialisation, tied to the urgent need to develop infrastructure for renewable energy, has sparked an international scramble to secure needed minerals. Technological innovation has created high demand for specialised metals and minerals, such as cobalt, lithium, and rare earth elements necessary for the manufacture of advanced electronics and environmental technologies including solar panels and electric vehicles. While the consumption of metals and minerals within post-industrial nations remains high, rapidly industrialising nations seek the resources and economic development to drive their own economies. These circumstances produced a global 'mining boom' that involves the revival of dormant or existing mining operations, an increase in the extraction activities, and exploration for additional mining sites (Himley, 2010; Langton & Longbottom, 2012; Verbrugge & Geenen, 2019).

Rising global market prices for metals and minerals incentivises nations to expand their mining industries, which in turn has led to rapid environmental and social change within the affected regions (Schaffartzik et al., 2016). The embrace of extractivist policies and the increasing global demand for raw materials invariably requires the use of the traditional territories of Indigenous Peoples. Many rich ore deposits are in regions where the land is conceptualised as a common good that exists for the use and enjoyment of the whole community. This includes publicly owned Crown lands, national parks, and invariably involves the Traditional Territories of Indigenous Peoples.

Globally, the mining industry is concentrated within a small group of transnational corporations (Mezzadra & Neilson, 2017) such as Glencore, China Minmetals, ArcelorMittal, Posco, BHP, Vale, and Rio Tinto. Chinese owned corporations are steadily gaining influence and power. More than half of publicly listed mining and exploration corporations are based in Canada (Government of Canada, 2022). In 2020, there were 1,348 Canadian mining and exploration companies, with mining interests in 97 countries (Government

of Canada, 2022). By 2013, half of the world's largest 40 mining corporations were mainly operating in developing nations whose emerging economies were recognised for both economic growth and the availability of extractable resources (Schaffartzik et al., 2016). This is significant, considering that in 1950, 86% of all metal extraction occurred in the USA, Europe, and the former Soviet Union (Schaffartzik et al., 2016).

Mining disrupts the physical and natural environment. The global acceleration of resource extraction has had considerable impact on the environment. Large-scale extraction projects are typically in remote locations close to Indigenous territories that rely on hunting, fishing, and gathering for their livelihoods. In addition to the problem of rapid depletion of resources is the problem of environmental degradation caused by large-scale extraction. Extraction creates waste, and the process of refining extracted resources contaminates soil and water, sometimes to the extent that it becomes unusable for humans and is unable to support wildlife. Therefore, the mitigation of negative impacts from extraction are a necessary component of any form of extraction that purports itself to be sustainable. Mines often leave an impact on their environment for decades or centuries after extraction has ceased (O'Faircheallaigh & Lawrence, 2019). In the past, and reflecting environmentalist values of an earlier age, mining corporations abandoned mine sites, leaving the government responsible for cleaning up. In addition, communities can quickly become economically reliant on a mine and consequently suffer from dislocations associated with mine closures that often occur with little warning (Teitelbaum et al., 2019).

In response to demands that extraction become more sustainable and have less of a negative impact on the environment, new technologies and practices are emerging. There is a focus on transitioning to renewable forms of energy production, using solar and wind energy, but also attempts to improve the efficiency and sustainability of mining operations. Other innovations include biomining which uses microbes to oxidise certain metals and minerals to allow them to dissolve in water (AGI, 2021). This process can be used to extract metals from ores, mine waste, and contaminated sites. It may also be used to recover metals that exist in discarded electronic devices and other post-consumer waste. As deposits of valuable ores are depleted, this mining technique is increasingly used to capture metals and minerals from ores previously thought uneconomical to process. Low-value ore and waste rock can be mined through 'dump leaching', which involves dumping the ore into a sealed pit where the metals are dissolved through bioleaching (AGI, 2021). Bioleaching has also been used to recover metals and minerals from existing acid mine drainage, which is believed to be a sustainable solution to clean up contaminated mine sites (AGI, 2021).

The 21st Century Relationship between Resource Development Companies and Indigenous Peoples

The 21st century has seen significant changes in the relationships between resource development companies and Indigenous Peoples. Mining companies are

now expected to accommodate and consult with Indigenous populations before extracting resources from their territories. This expectation is linked with the growth of CSR. CSR refers to voluntary actions, those that go beyond legal obligations, designed to improve the economic, social, and environmental conditions of the impacted local community. IBAs have been one of the primary mechanisms of the evolving relationship between mining corporations and Indigenous communities. These agreements are designed to allow Indigenous communities to share in the wealth realised from resource extraction on their lands (Coates & Crowley, 2013).

There have been attempts to encourage improved CSR by tying the social license to operate (SLO), the acceptance and permission of a community to carry out an ongoing business operation, with eligibility for financing. World Bank policy dictates that financed operations must include measures to prevent negative impacts on Indigenous populations and must mitigate and compensate for negative impacts that do incur damages. As well, operations must provide culturally appropriate social and economic benefits to the local community and to demonstrate that broad community support exists for the project.

Despite these policies, mining corporations managed to resist cooperation and still secure financing. Some corporations have submitted impact analyses that failed to mention impacts on Indigenous Peoples, including long-term impacts on the livelihoods, social organisation, and cultural integrity of local Indigenous Peoples and did not measure project performance, demonstrate broad community support, and/or mention deliverable benefits to local communities. Until recently, it was often difficult to convince mining corporations to adequately fulfil their social responsibility to Indigenous populations (O'Faircheallaigh, 2015).

According to Ciaran O'Faircheallaigh, one of the leading analysts of Indigenous Peoples and mining, environmental and social-impact assessments were long dominated by mining interests. Mining corporations defined which potential impacts should be studied, and what methods should be used to determine those potential impacts. The result is that Indigenous communities are often faced with providing consent for projects they have had no role in shaping, often leading to conflict. Governments typically approve the impact assessments provided to them, and mining corporations hire consultants who understand the need to produce an assessment that will be acceptable to the government. The result of this system has produced vast understatements of foreseeable environmental damage while exaggerating benefits. A study of 71 US mines, for example, revealed that impact assessments failed to address the probability of contaminant leaching and acid drainage resulting from extraction (O'Faircheallaigh, 2017).

Impact Benefit Agreements as a Remedy to Exploitative Extraction

In this environment, impact and benefit agreements emerged as important legal-economic tools designed to build collaborative partnerships between mining companies and Indigenous communities. The United Nations Declaration

on the Rights of Indigenous Peoples (UNDRIP) encourages governments and corporations to consult Indigenous Peoples about resource development projects and to share the benefits of these mines and other projects with Indigenous Peoples affected by them.

In Canada, although Canadian law and government policy established a duty to consult with impacted Indigenous populations, there is no veto right extended to the country's Indigenous Peoples. Instead, IBAs are negotiated between the Crown and First Nations, although the actual procedural responsibility has been passed to the mining companies. For the companies involved, the most significant benefit of the IBA is that it provides the mining corporation with the social license to operate. If mining corporations attempt extraction without a social license to operate, they can expect opposition to their efforts and often government and/or public support will be in favour of the Indigenous Peoples and not the corporation. Civil unrest and charges of injustice can not only harm the individual mining operation itself, but the entire corporation can be in jeopardy, with controversy often leading investors to divest themselves of company shares (Bocoum et al., 2012).

Once this social licence is granted through community acceptance of the agreement, it becomes easier for mining interests to secure permits and other regulatory approvals. Additionally, governments tend to be satisfied that attempts to negotiate an IBA, even if unsuccessful, fulfil the 'duty to consult' ethic (Meerveld, 2016). An IBA has other important functions, however, such as relationship building between First Nations and mining interests. They can reduce the uncertainty surrounding the project that arises from social opposition to extraction, enshrine the expectation that negative environmental impacts will be mitigated, and create a pathway for Indigenous communities to share in the benefits of resource development.

Moving from marginalisation to the recognition of Indigenous rights to influence mining activities emerged over several decades. The Aboriginal and treaty rights of First Nations, Inuit and Métis Peoples were acknowledged within the *Constitution Act* of 1982. Various IBAs have been negotiated in Canada since the 1970s. Despite the willingness of nations to enshrine an ethic to consult and accommodate Indigenous Peoples, the requirement to do so is mostly voluntary. Only a few countries have a legislated requirement to negotiate agreements with Indigenous Peoples. Although IBAs are common practice in Canada, they are not specifically required (Bocoum et al., 2012).

CSR and IBAs are elements in the new relationship building processes associated with mining. They have the additional benefit of a providing official, and legally enforceable, agreements. IBAs involve consultation and engagement with the Indigenous populations and therefore encourage mining corporations to consider the needs of the local communities. IBAs are believed to enhance the sustainability of mining by targeting corporate initiatives to the needs of the impacted local communities. For example, what is required to gain social license in Ecuador is not necessarily the same as what is required to gain social license in Northwest Saskatchewan. In any case, however, it is hoped that long-term

investment funds established by mining corporations will allow communities to achieve inter-generational equity (O'Faircheallaigh, 2015). The task then became to convince mining corporations to participate in such arrangements.

In many Indigenous communities, employment with the mining companies or related service and supply firms is often highly valued. At the same time, people understand the negative impacts that are generated from extraction, and they recognise the ecological and social cost of extraction (Szeman, 2017). This tension leads to resistance against extraction. When negotiating IBAs, Indigenous leaders attempt to ensure that mining operations are obligated to offer employment, business opportunities, and other benefits that mining operators are to the Indigenous population. The potential benefits arising from an IBA include provisions for labour, economic development, community wellbeing, environmental monitoring and protection, financial compensation, and commercial arrangements (Meerveld, 2016).

Patterns and Processes in the Development of IBAs

States (national or subnational) governments play major roles in the mining industry, from managing environmental requirements, providing permits, and overseeing resource activity. They represent the public interest and have, in many countries, specific legal, treaty, or constitutional obligations to ensure that the rights of Indigenous Peoples are respected. Governments rarely, however, play formative roles in negotiations which occur between the corporations and the Indigenous Peoples. Mining corporations, even after negotiating IBAs with Indigenous groups, require profit from their activities. Without the prospect of a reasonable return on investment, companies would withdraw from the field.

Firms control the key elements—revenue, employment, training, service and supply contracts, environmental monitoring—in the mining process. Analysts believe that the rise of IBAs is not only indicative of greater corporate respect towards Indigenous Peoples and land claim rights, but also a sign that governments are limiting their responsibilities for working directly with Indigenous Peoples (Meerveld, 2016). Mining companies historically paid little attention to local impacts of development activities; IBAs represent a reversal in approach. Indeed, in earlier times (and more rarely in recent years), mining interests joined with governments in moving aggressively onto Indigenous territories without negotiations with local communities.

While the state may present itself as the protector of Indigenous Peoples and the greater good, governments have their own agendas. Even with the empowerment of Indigenous Peoples, governments continued to promote integration—even assimilation—to the dominant society. For example, Ecuador provided housing for Indigenous Peoples with the proceeds of extraction revenues, but this investment has been criticised as an extension of colonialism, rather than a project developed in partnership with the Indigenous population (Junka-Aikio & Cortes-Severino, 2017). Instead of improving Indigenous conditions, the new housing became a tool of assimilation that displaced People from their ancestral lands and relocated them to settler communities.

At times, governments have clearly sided with the corporations, as another South American example demonstrates. In 2016, that same Ecuadorian government sent thousands of military personnel into the territory of the Indigenous Shuar for the purpose of securing the site of the Explorcobres mine project (Ling, 2017). This show of force occurred after Shuar people attempted to resist the Chinese and Canadian owned mining operations that were expected to produce \$1.2 billion in annual royalties (Ling, 2017; Mining Watch Canada, 2018). The Shuar people asserted that the mining camp destroyed an ancestral village, displaced many families, and threatened the destruction of over 40,000 hectares of Amazonian jungle. Then President Rafael Correa denied the region was ancestral territory and attributed attacks on the mining site to the work of a few extremists (Valencia & Ellsworth, 2020). Eventually, however, organised Shuar resistance to the mine stopped the project (Valencia & Ellsworth, 2020).

The historic pattern is that states played major roles in making Indigenous territories available for development. Several Canadian examples illustrate the process. *The Gradual Civilization Act* of 1857, for example, allowed for the conversion of reserve lands into the private property of individuals who then lost their Indigenous status (Preston, 2017). The newcomers asserted that they knew the best use for the land and could promise much greater economic return than the preservationist/conservationist approach favoured by Indigenous groups. Supported by the Canadian government, the newcomers believed they were therefore entitled to utilise commercially valuable territory occupied by Indigenous Peoples.

The dispossession of Indigenous Peoples in the interests of commercial resource development happened across Western Canada after Confederation in 1867. In return for the vast territories that stretch across Northwest Saskatchewan, Northern Alberta, Northeast British Columbia, and part of the Northwest Territories, Treaty Eight provided reserves, annuities, and the right to continue to use the land for hunting, trapping, and fishing, except when regulations stated otherwise or on any land the treaty had set aside for settlement and industry (Tesar, 2016). However, when a large deposit of petroleum-suffused sand was discovered in the District of Athabasca in 1891, the Government of Canada extinguished the title that Natives or Métis had to the region (Preston, 2017). Many of the promises made to the Indigenous Peoples in Treaty Eight were not fully honoured by the Government of Canada (Tesar, 2016).

Policy in Canada changed dramatically in the late 20th century, with legally and constitutionally empowered First Nations negotiating modern agreements to cover unceded lands and to thereby free up vast amounts of territory for development. Modern treaties—much more comprehensive than the 19th century accords—produced significant benefits and much greater authority for Indigenous communities. Since 1991, First Nations that have signed treaty agreements have experienced a 17% rise in real income, an approximately \$3,000 yearly increase, compared to First Nations that have not yet signed self-government agreements (Meerveld, 2016).

Additionally, the communities with signed treaties have become less dependent on transfer payments, their Community Well Being scores increased notably,

and Comprehensive Land Claims settlements are associated with a 44% increase in women's incomes (Meerveld, 2016). When treaties include financial returns from mineral extraction on lands covered by the treaty, Indigenous workers in the sector experience a 41.2% rise in income (Meerveld, 2016).

The treaty rights of Indigenous Peoples ensured that treaty communities were more successful in attaining IBAs than non-treaty communities; most Comprehensive Land Claims and Self-Governing Agreements require that IBAs are used between Indigenous communities and mining interests (Meerveld, 2016). This model proceeds on the implicit understanding that IBAs have considerable potential to assist Indigenous communities in capturing benefits from mining. IBAs with Indigenous Peoples also contributed to increased returns for both mining corporations and the State (Neale & Vincent, 2017). Mining companies discovered that the IBAs produced important benefits for mining companies. These agreements provided a pool of potential workers living near the development site. The mining operations can provide valuable jobs and other benefits to the Indigenous population while at the same time encouraging the Indigenous populations to limit their opposition to mining.

Mining firms quickly adapted to the new legal and Indigenous rights regimes (Dombrowski, 2010). In Canada, for example, Rio Tinto developed mines on recently reclaimed Indigenous lands, the same land for which it had been very difficult to obtain extraction permits when it was designated Crown Land (Dombrowski, 2010). The benefit to the mining interests is that the under-developed and impoverished Indigenous communities, many eager for economic opportunity, tend to be open to conversations when it comes time to negotiate IBAs (Dombrowski, 2010). IBAs promise jobs and often a portion of the profits or revenues and cash incentives.

The IBAs have become a substitute for state oversight of negotiations between Indigenous populations and corporations (Meerveld, 2016). Approaches that prioritise government leadership and intervention underestimate the importance of Indigenous autonomy and self-interest in pursuing arrangements with mining companies. While ceding control of extraction negotiations to Indigenous communities represents a move away from colonial control by the state. IBAs also transfer responsibility away from the state and put the emphasis on corporate-Indigenous relationships.

Challenges and Strengths of IBAs

IBAs continue to evolve in design and practise, as companies and Indigenous communities adjust to the new arrangements and to evolving practise in the field. IBAs are not easily unenforceable but even the largest and most recognised mining corporations can fail to deliver on their promises. Sometimes this is because mining companies work in volatile markets and complex regulatory environments, and therefore can face financial or other obstacles they could not anticipate (O'Faircheallaigh, 2020). In other instances, companies can attempt to evade their responsibilities. Glencore, one of the largest and most influential

mining corporations in the world, contested responsibility for environmental contamination at McArthur River mine in Australia. Glencore claimed that contaminated fish were only present inside the mining lease and were not migrating beyond the lease area. When it was proved that contaminated fish were indeed present beyond the mining lease area, Glencore insisted that those fish were contaminated only because the local rivers were naturally mineralised with non-mine derived lead (O'Faircheallaigh & Lawrence, 2019).

As the above example illustrates, the main challenges with IBA enforcement is in regard to mitigation and long-term remediation. For example, that same Glencore mine at McArthur River negotiated an agreement where they were allowed 300 years to properly remediate the site and then ensure the site will remain safe for an additional 1,000 years. Similarly, the Ranger uranium mine, operated by a subsidiary of Rio Tinto, agreed to ensure that radioactive tailings do not contaminate the environment for a period of 10,000 years. Neither of these timelines is enforceable and it is highly unlikely that either mining corporation will exist that far into the future (O'Faircheallaigh & Lawrence, 2019).

International IBA development guidelines, such as those produced by the World Bank, advise that mining interests should support the capacity of impacted communities to operate environmental monitoring infrastructure. Historically, transnational mining corporations were slow to share Indigenous concerns about the environment. IBAs did not often provide an ideal avenue for the greater involvement of Indigenous Peoples in monitoring impacts. Ciaran O'Faircheallaigh notes that even when there are strong protections in the IBAs, the mining corporations and governments have tended not to fund these provisions adequately (O'Faircheallaigh, 2020). Additionally, Indigenous communities struggle to maintain the human resource capacity to participate in monitoring over time (O'Faircheallaigh, 2020). Recently, meaningful investment in the local capacity for effective monitoring of environmental impacts has become a crucial component of IBAs.

One of the main strengths of IBAs from the community perspectives is that the IBA assists local communities in building capacity for development as it provides multiple avenues for engagement and Indigenous participation (Bocoum et al., 2012). This involves activities such as involving community members in articulating community goals, identifying pathways to achieve these goals, enhancing community and corporate negotiation skills, and ensuring that Indigenous participants learn about project planning and implementation. These activities strengthen Indigenous economic and political autonomy. On the other hand, communities have to ensure that the benefits remain in the local areas as much as is possible. Some communities have found jobs and economic returns minimised when fly in-fly out workers are used and service and supply companies are based in distant centres (Teitelbaum et al., 2019).

IBAs are expected to move beyond mere mitigation of social problems. If, for example, a negative consequence of extraction is increased local supply of illicit narcotics and gambling, then it is reasonable to suggest that an IBA promise to develop an addictions treatment facility is merely a mitigation measure and not

an attempt at long-term development and capacity building. When large scale lucrative mines operate for decades in regions without significantly improving under-development, poverty, and extreme social inequality, the IBA may have fallen short of the shared expectations of the company and the communities. It is crucial that these IBAs have the capacity to ensure that promises to Indigenous communities are kept, and that there is an avenue of redress when they are not.

There are a growing number of examples of meaningful environmental cooperation involving companies and Indigenous Peoples. In the case of Voisey's Bay, the site of a large nickel, copper, and cobalt deposit in Labrador, Canada, the mining corporation negotiated a separate IBA with two separate Indigenous communities within the region (O'Faircheallaigh, 2020). The Indigenous communities negotiated an Environmental Agreement with the Government of Canada and the Government of Newfoundland and Labrador. Each IBA provided for the creation of environmental partnerships between the mining corporation, Vale, and the Indigenous communities, which included both local participation and the integration of traditional knowledge into the monitoring activities.

Vale also agreed to fund full time Indigenous environmental monitors for a period of six years. When the mining company eventually closes the site, they have promised to restore the Voisey's Bay area as close as possible to its original condition. In relation to the Environmental Agreement negotiated with government, an Environmental Management Board made up of members of all signatory parties, and with an independent Chair, was created to provide environmental management advice (O'Faircheallaigh, 2020). The Board provides advice about Vale's performance in delivering socio-economic benefits to the local communities. The government minister retained the power to issue permits and to override terms and conditions advised by the Environmental Management Board (O'Faircheallaigh, 2020). O'Faircheallaigh asserts that these measures, as well as the active involvement of the State, provide a: '[s]ubstantial and multi-faceted regime allowing for Innu and Inuit participation in monitoring the delivery of benefits' (O'Faircheallaigh, 2020, p. 1343). As seen in this example, to be effective, the environmental oversight provisions must be more than a system of self-monitoring by the mining corporation and must prioritise environmental protection and Indigenous engagement.

Conclusion

The face of global mining has changed dramatically over the past three decades. In the 1980s, Indigenous Peoples struggled to get attention from either the government authorities or the mining companies. By the 2020s, Indigenous Peoples in Canada and globally had secured a much more prominent role in the sector. While Indigenous equity investments in individual companies remained limited, resource revenue sharing, Impact and Benefit Agreements, and significant involvement in project approval and evaluation processes had become commonplace. Indigenous authority and involvement, while far from comprehensive, were most extensive and substantial in Australia, Canada, the United States,

and the Scandinavian nations and less well advanced in authoritarian nations or emerging economies. Learning between nations and between Indigenous Peoples and governments has helped shape an evolving global system of Indigenous relations with the mining industry. Equally, the emergence of CSR as a force in the business world encouraged mining companies, governments, and Indigenous communities to rethink, at the most fundamental level, the nature of mineral development and community relations.

The development of informal global standards reflects two related processes: the growing vigilance of the public on Indigenous affairs and development and the global nature of the mining sector. Media oversight and the increased ability of Indigenous communities to connect to journalists, networks, and social media outlets ensure that Indigenous-corporate clashes get substantial, occasionally outsized, attention. Mining companies in many countries operate under considerable public surveillance. In the latter case, the prominence of key international mining companies, such as Vale, Newmont, and BHP, the fluidity and interconnectivity of mineral markets, and international financing for mining operations has re-enforced responsiveness to the needs, legal rights, and interests of Indigenous Peoples.

Acts and extensive policies of CSR has become commonplace in the global mining industry. As the Canadian situation demonstrates, many mining companies appreciate that strong relations with Indigenous Peoples can expedite approval processes, improve environmental monitoring and remediation, and employee recruitment and retention. Community engagement has, in many instances, proven to be effective business. Furthermore, positive engagement, particularly when following the full-cycle approach (from exploration through to remediation), reduced conflict and legal challenges, helped the communities respond to opportunities and mining companies improve their operations.

With global demand for minerals escalating and with climate change creating real urgency around the production of specific minerals (e.g., rare earth metals), the need for effective, meaningful, and long-term relations between mining companies and Indigenous communities has increased dramatically. With a growing number of 'best practises' in Indigenous-corporate relations and with increased global vigilance, the sector is operating under stronger environmental protection and improved community relations. Mining companies understand the legal and political realities and have become increasingly proactive in responding to Indigenous communities. The transitions are real and substantial; perhaps the most promising element is that all participants—Indigenous communities, government, and mining companies—understand the need for continued improvement.

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3 Digging for accountability in Canada

Structural power inequalities in the Global South mining industry

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Introduction

Canada is home to 75% of the world's mining corporations (Government of Canada, 2021), with Canadian companies operating in 96 foreign countries in 2019 (Natural Resources Canada, 2021). In recent decades, the Canadian mining industry has been scrutinized for being involved, directly and indirectly, in widespread environmental devastation (Broad et al., 2018), human rights violations (Butler, 2015), and extrajudicial killings (Imai et al., 2017; Karapatan, 2014), amongst other forms of egregious corporate abuse. Simultaneously, water and land have become the root of violent conflicts within local communities hosting transnational mining, with affected community members going to great lengths to defend their access to land, food security, identity, and agency (Gordon & Webber, 2008). Civil society organizations have spoken out against these abuses, often highlighting large-scale mining's externalities related to pollution and metal leaching within critical watersheds; increased food insecurity and poverty-related to nearby mining operations; and the devastating effects on livelihoods, sacred customary practices, and senses of self (Butler, 2015; Freslon & Cooney, 2018). Despite ongoing corporate violations, society relies heavily on minerals to create the instruments and infrastructure used daily.

Pressure to act on Canadian corporate mining abuses overseas materialized between civil society, governments, and the public and private sectors. Debates on redress for corporate litigation tend to argue two opposing approaches: increased state regulation versus corporate self-regulation (Idemudia & Kwakyewah, 2018). Despite the availability of regulatory instruments, there remains an absence of global regulatory treaties and binding legislation to litigate extractive operations (Seck, 2008). In recent years, voluntary mechanisms under the umbrella of corporate social responsibility (CSR) have prevailed in regulating the mining industry (Idemudia & Kwakyewah, 2018). Frederiksen (2018) views CSR as "an important way for the private sector to deliver development, linking economic and social goals to produce win-win outcomes" (p. 495). With substantial political influence and resources, powerful interests across governments and corporations have been able to successfully lobby for voluntary CSR measures to act as the solution for managing international conflict (Bodruzic, 2015; Kamphuis, 2012).

Discourse and power have played fundamental roles in the centrality of CSR within the global mining industry. An expanse of literature on extractive policy identifies the structural power inequalities in global mining discourse that have led to CSR's dominance (Ciupa & Zalik, 2020; Coumans, 2019). Critical CSR scholars argue that the lack of Canadian regulatory regimes, related to non-binding accountability legislation within the mining industry, has enabled exploitative operations abroad with impunity (Frederiksen, 2018; Imai et al., 2017).

This chapter presents a comparative review of global mining discourse trends, institutional mechanisms, and their impacts on host nations, exploring the case of Canadian mining operations in the Philippines. This case is notable because of Canada's history of foreign ownership in the archipelago's mining sector, which we describe in the sections that follow. The goal of this chapter is to identify how Canadian governments and corporations use alternative accountability mechanisms under the umbrella of CSR within the Philippines' mining industry. We also sought to identify ways by which international resource development can be undertaken in a manner that upholds corporate accountability and enables community agency.

Host State Accountability: Corporate Social Responsibility and Neoliberal Governance

Neoliberal mining reforms implemented in the 1980s made foreign direct investment, free trade, and state-deregulation widespread across the Global South's extractive sectors (Camba, 2015). By the early 2000s, growing public awareness emerged concerning the socio-environmental devastation caused by transnational mining in developing nations (Kamphuis, 2012). Overwhelming public opposition became the impetus for high-profile multi-stakeholder standard setting processes in Canada, aiming to identify concerns and recommend solutions for corporate accountability in the Global South (Coumans, 2010). During this time, the discourse surrounding host state weak governance and CSR proliferated, ultimately materializing as the norm to addressing corporate violations. To this day, CSR within the Global South mining industry remains highly contested as corporations, governments, and civil societies hold conflicting perspectives on its effectiveness.

Anti-corruption and host weak governance discourse strengthen CSR's predominance over binding legal remedies (Coumans, 2019). Host weak governance discourse originates from the widely studied analyses of Global South resource abundance and its relevance to either economic growth or stagnation (Adams et al., 2019; Sovacool & Andrews, 2015). Most studies argue that resource endowments in developing countries are a "curse", defined by the inability for resource richness to yield sustainable economic growth (Adams et al., 2019; Auty, 2002; Badeeb et al., 2017). The resource curse, also known as the "paradox of plenty", was coined by Auty (2002) and is characterized by the significant social, economic, environmental, and political challenges that arise within low-income mineral-rich countries.

Authors commonly attribute the resource curse phenomena to host state weak governance (Papyrakis & Gerlagh, 2006; Tsani, 2013), corruption (Kasekende et al., 2016; Öge, 2016), fragile institutions (Mehlum et al., 2006), and a lack of transparency and accountability among Global South government actors (Ciupa & Zalik, 2020; Sovacool & Andrews, 2015; Sovacool et al., 2016). Mehlum et al. (2006) argue that resource curse implications depend on the nation's institutional strength, with weak governance resulting in failures to transform mineral endowments into national economic prosperity. Authors claim that low-income mineral-rich states commonly possess a lack of skills, technologies, and capacities which inhibit their ability to govern resources properly (Mehlum et al., 2006). Kolstad and Wiig (2009) highlight how strong institutions possess the power to prohibit undesirable actor behavior such as rent-seeking, corruption, and political patronage. They conclude that transparency and accessibility to information through beneficial ownership registries could reduce corruption and enable socio-economic prosperity.

Governments and the industry have utilized voluntary CSR initiatives as the primary means of addressing host state weak governance within the nations they operate. CSR also aims to enforce socially responsible corporate behavior and build trust amongst diverse actors involved within the mining sector (Idemudia & Kwakyewah, 2018; Lee et al., 2019). Significant measures have been taken to construct discourses that aim to combat public scrutiny and publicly promote better industry standards.

Discourse centered around responsible mining has been widely endorsed through CSR-centric philosophies, initiatives, and programs. These concepts include social development license to operate, creating shared value, and responsible business conduct, amongst others (Billedeau, 2019; Bodruzic, 2015; Dashwood, 2007; Fraser, 2019; Pedro et al., 2017). Since its inception, CSR discourses have transformed into an industry of CSR consulting firms, working to elevate social reputation and status amongst corporations, non-corporate actors, and the public (Avakian, 2015). Accordingly, CSR awards highlighting superior socio-environmental initiatives have proliferated (Lewis & Carlos, 2019). To corporations, CSR awards are now seen as an incentive to be more dedicated to CSR as it has become a key contributor to legitimacy within the sector, influencing large shareholders such as international banks to invest in responsible business conduct (Lee et al., 2019).

Today, the mining industry strongly supports adherence to global frameworks to promote responsible corporate behavior. Among these include the International Council on Mining and Metals Sustainable Development Framework; the Mining Metals and Sustainable Development Social License to Operate; the US-based Coalition for Environmentally Responsible Economies' Global Reporting Initiative; the Cyanide Code; the United Nations Global Compact; the Mining Association of Canada's (MAC) Towards Sustainable Mining (TSM) Initiative; the World Business Council for Sustainable Development; the Extractive Industry Transparency Initiative; the United Nations Guiding Principles on Business and Human Rights, amongst others (Lindman et al., 2020; Pedro et al., 2017). Ironically, due to the lack of standardization for reporting, auditing, and

accounting in global CSR practice, there is no benchmark that can truly measure CSR performance and improvements towards sustainability within the mining industry (Jenkins & Yakovleva, 2006).

Instead, through sustainability reporting, mining companies have utilized the Sustainable Development Goals (SDG) as a benchmark for assessing CSR implementation and performance.

Many have touted the extractive industry's role in supporting growth and prosperity in the Global South in relation to the 17 Sustainable Development Goals (SDGs) (Global Affairs Canada, 2021; MAC, 2021; Pedro et al., 2017). SDGs are commonly used as a powerful discursive tool to frame CSR policies and support extractive operations. Building upon the eight Millennium Development Goals, the SDGs act as a universally accepted framework which operationalizes action towards social inclusion, environmental sustainability, and economic development. A fundamental component of the 2030 Agenda is its promotion of SDGs within economic/industrial activities (Monteiro et al., 2019). Such promotion is facilitated through the SDG's acknowledgement that socio-economic development is reliant on sustainable resource management.

Authors commonly tout the numerous benefits of the mining industry within developing nations, such as increasing government revenues, employment creation, building infrastructure, and transferring technologies and knowledge (Pedro et al., 2017). Monteiro et al. (2019) study on the congruence between SDGs and mining conclude that, "mining industries can promote peace in all possible spheres, contributing to the achievement of each one of the SDG" (p. 518). This discourse regarding the role of mining in achieving sustainable development in the Global South is further exemplified by Fraser (2019), where business strategies within mining, such as the "creating shared value" approach, are imperative to securing the SDGs globally. However, researchers such as Ivic et al. (2021) challenge the effectiveness of SDGs as a benchmark within mining CSR reporting, stating that disclosed information is ambiguously defined; lacks detailed explanations or objectives in correlation with the SDGs key performance indicators; are focused upon minimizing mining externalities rather than promote strong sustainability; and based on self-reported data.

Historically, civil society organizations have challenged dominant mining discourses such as weak governance, host state accountability, and sustainable development, revealing that governments and corporations have used these discourses strategically to maintain their influence within global mining markets. Western hegemonic visions of development upon the so-called "developing world" have led to the formation of mining discourses that shift focus on corporate accountability to host states' "weak governance". This shift in focus has led to the implementation of band-aid approaches to corporate abuse abroad, with Global North actors using weak mechanisms, rather than binding legislation, to remedy mining negligence and externalities in host states. Analysis of critical institutional mining literature below reveals several gaps and shortcomings related to the good news narrative of mineral development and CSR in the Global South (Butler, 2015; Ciupa & Zalik, 2020; Idemudia & Kwakyewah, 2018).

Host versus Home State Accountability: Global Structural Racism & Mandatory Due Diligence

Host state accountability discourse is defined as the industry's need to provide solutions related to the "intrinsic weak governance" of host developing nations (Coumans, 2019). Discussions which aim to shift accountability from home state to host state lack critical analysis of systemic racism's fundamental position in upholding global capitalism. Since the inception of mining, the oppression of racialized peoples has been used for production and capital accumulation (Rodney, 1972). Host weak governance discourse discounts the significant role Global North development interventions have played in weakening institutions in the Global South. Researchers have challenged the power held in global mining discourse, characterizing its origins in modernization theory, paternalism, white supremacy, and racist representations of Global South governance (Butler, 2015; Ciupa & Zalik, 2020; Idemudia & Kwakyewah, 2018).

Alternatives to dominant mining discourse, such as home state accountability, center discussions around alleviating structural power inequalities between corporations, governments, civil societies, and local communities. Instead of strengthening home state accountability, Canadian governments and its corporations lobby for weak regulatory regimes for mining operations abroad and increase financial aid to ostensibly strengthen institutions in the host countries they are operating within. Ciupa and Zalik's (2020) research articulates how weak governance and anti-corruption discourse have positioned host states in the Global South as sources of "social pathologies that facilitate corruption" (p. 826). They argue that anti-corruption discourse has advanced global structural racism; limited critical analysis of extractive firms in the Global North; and diminished criticism of elitist crimes such as wealth transfers to offshore havens, money laundering, and insider trading. Corruption is understood by Doshi and Ranganathan (2019) as a subjective, evolving, and ubiquitous buzzword, with the politics of the term posing a multitude of power implications. The authors argue that corruption discourse is used opportunistically and remains absent when referring to Global North actors' and their joint involvement in public exploitation and fraud (Doshi & Ranganathan, 2019). This sentiment is echoed by authors who assert that "corruption" is rarely attached to white-collar crimes in the Global North and is rather restricted for practices that occur in non-West, low-income developing nations (Gillies, 2020).

Researchers conclude that the dualism of "strong home state" vs. "weak host state" governance remains a logical fallacy, embedded within a reductionist one-size-fits-all ideology of good governance (Coumans, 2019). Canada, a "strong" governance region and one of the wealthiest developed nations in the world, possesses many of the mining-related problems by which "weak" low-income developing countries are characterized (Coumans, 2019). Such examples include concerns of regulatory capture within government authorities and agencies (BC Auditor General, 2016); mining assessments continuing in Northern Ontario despite Neskantaga First Nation resistance and possession of a 26-year-long boil

water advisory (Scott et al., 2021); and claims of \$4.4 billion dollars in Canadian and corporate tax evasion scandals (Nardi, 2020), amongst other evidence of “weak governance”.

Voluntary mechanisms have been centered within government discussions of accountability to operationalize broad systemic violence and socio-environmental devastation in developing nations. For example, Grégoire (2019) illustrates the lack of Canadian diplomatic pressure related to mining-associated violence in Guatemala as a product of harmful CSR discourse. The study concludes that Canada’s vigorous promotion of CSR dialogue as a conflict mechanism has legitimized repression, reinforced racist tropes of Indigenous communities, and inhibited collective action amongst human rights defenders. Coumans (2019) proposes a shift away from discussions of weak and strong governance to concentrating on “compromised” governance. The author explains that compromised governance focuses on the mining industry’s historical role in weakening Global South institutions through practices such as dispossession, regulatory capture, tax avoidance, and investor state-arbitration.

Oftentimes, CSR mechanisms are used to drive economic globalization and neoliberal agendas (Frederiksen, 2018; Idemudia & Kwakyewah, 2018). Dentchev et al. (2017) conclude that governments are key actors using CSR strategically to advance the liberalization of economies and indirectly bolster market and civil society pressure for responsible corporate behavior. Kamphuis (2012) reinforces this sentiment stating Canadian CSR policies assume “that financial markets exist autonomously of state decisions, actions, and interventions” (p. 1476). The author deems this assumption false by emphasizing the states’ role in the creation and promotion of capital markets, further providing the example of Canada being the most significant financier for Canadian mining companies abroad (Kamphuis, 2012). Of the 1,290 mining companies listed under Canadian jurisdiction, 621 Canadian corporations operating abroad hold most of Canada’s mining assets, valued at \$177.8 billion (Natural Resources Canada, 2021).

Gagnon et al. (2003) were among the first to identify the governance gap related to corporate accountability to overseas human rights abuses. The authors stated that a solution to the governance gap is to invoke more robust home state regulations for corporate negligence abroad (Gagnon et al., 2003). Seck (2008) reinforces sentiments for stronger home state regulation through their analysis of transboundary corporate harm within international sustainable development law. The author describes how human rights treaties affirm the state’s duty in regulating transnational mining companies for human rights abuses through legislation, judicial remedies, and compensation (Seck, 2008). Under the United Nations Guiding Principles on Human Rights, researchers call for the adoption of mandatory human rights and environmental due diligence (HREDD) legislation.

HREDD aims to mitigate and regulate corporate negligence within home states (Bueno & Bright, 2020). In their 2017 study on the mining sector’s response to human rights pressures, Catherine Coumans, the Asia-Pacific Program Coordinator for Mining Watch Canada and leading researcher within this field, emphasizes the need for binding legal mechanisms in/within the Canadian extractive industry.

Coumans (2017) states that companies recognize human rights as a voluntary exercise and that binding legal action needs to be taken to ensure corporate compliance to human rights in the Global South. In addition, Coumans (2020) policy brief provides recommendations for the United Nations Environment Assembly (UNEA) recent 2019 resolution on mineral resource governance. The UNEA is the “world’s highest level decision-making body on the environment”, working collectively with 193 Member States to set guidelines for global environmental policies and establish international law (UNEA, 2021, para. 1). The most pressing recommendations outlined in the brief include increased home state regulation; implementation of HREDD and public tax avoidance mechanisms; empowerment of the Office of the Canadian Ombudsperson; and the right for local communities to decline mining.

Emergence of Canada as a Global Leader in the Extractive Industry

Canadian transnational mining corporations have gained international recognition for industry-leading corporate citizenry and socially responsible corporate behavior (Government of Canada, 2021). Canada has historically and continues to stand as a leader amongst the most powerful countries in the international mining industry, followed by Australia, the United Kingdom, the United States, and South Africa (Butler, 2015). China has also recently emerged as a mining industry powerhouse, recognized as the second global leader in sourcing and receiving foreign direct investment (Woetzel et al., 2019). Although hegemonic power held in the mining industry seems to be evolving, the dynamics that sustain global power asymmetries remains unequivocally present.

Canada is a leader within the global mining industry with 1,290 companies operating within the sector, and mining assets totalling \$263.2 billion in 2019 (Natural Resources Canada, 2021). Canada’s success as a leading mining nation can be attributed to its socio-political power; its proficiency in geological exploration; competencies in enhancing venture and risk capital in the industry; and its strongly cultivated financial and legal services sectors (Deneault & Sacher, 2012).

Canadian mining companies began to expand rapidly across the globe by the late 1980s (Butler, 2015). This expansion was a response to the global socio-economic shift towards neoliberal policies, first seen in the World Bank’s diffusion of structural adjustment programs in the Global South (Camba, 2015). Since 1985, neoliberal reforms implemented by the World Bank manifested over 90 states adopting new mining laws or revisions of existing ones favoring foreign investment (Butler, 2015). Canada is a founding member of the World Bank, playing an influential role in advancing development policies within the institution since 1945 (World Bank Group, 2021). Canada remains heavily implicated in World Bank development agendas, for example, evidence shows Canadian lawyers being hired as expert consultants in World Bank-funded projects to help African governments “modernize” their mining laws (Butler, 2015). Since the

1980s, there has been a steep decline in the Canadian government informing its citizens about its international aid program. Rather than the Canadian state describing aid initiatives through humanitarian motives, Masaeli and Munro (2018) conclude that “recent governments have been increasingly explicit about using the aid program to advance national economic interests” (p. 85).

The Canadian mining industry’s global prominence is upheld by domestic investments and financial services (Deneault & Sacher, 2012). Export Development Canada, a federal Crown corporation owned wholly by the Government of Canada is exemplary of the states’ critical role in advancing private interests within the mining industry. For example, in 2005, EDC provided \$2.54 billion in total commercial loans to Canadian corporations operating in the international energy sector (Canadian Network on Corporate Accountability (CNCA), 2007). The Canadian Pension Plan (CPP) is also a Crown corporation, financially supported by workers’ contributions to the Canadian retirement program. The CPP holds one of the nation’s most significant funds, at over \$400 billion (Rowe et al., 2019). In 2009, the Canadian Pension Plan Investment Board (CPPIB) invested in 400 Canadian corporations operating in the extractive sector (University of Quebec in Montreal (UQAM), 2012). In conjunction, the Toronto Stock Exchange (TSX) is recognized as the global mining industry’s dominating source of investment capital. TSX comprises 47% of the world’s publicly listed mining companies, accumulating \$7.5 billion of capital in 2020 (TSX, 2021). However, through EDC, CPPIB, and TSX, Canadian investments lack proper screening and due diligence monitoring for assets, ultimately leading to the provision of financial support to negligent business practices.

Through lobbying and mining policy co-creation with the government, industry associations have upheld the narrative that mining is a fundamental component of Canada’s national and global identity (Global Affairs Canada, 2021). The Prospectors Developers Association of Canada (PDAC) and the Mining Association of Canada (MAC) are the nation’s most important industry association. PDAC and the MAC play an integral role in creating global mining policy norms and standards, utilizing lobbying to advance the globalization of the industry. PDAC is based in Toronto and concentrates on the mineral exploration and development sector. The organization is recognized for holding the world’s largest annual convention for the international mining industry (Government of Canada, 2021). The MAC is based in Ottawa, acting as the Canadian mining industry’s voice, with 75% of the nation’s mineral and metals production under MAC membership (Haughton, 2021). It is governed by industry leaders who work to advance Canadian mining operations and responsible business conduct policy at the domestic and international levels (MAC, 2021). The MAC pledges itself for its internationally acclaimed TSM Initiative. The TSM initiative is a CSR instrument that operationalizes eight protocols and frameworks for responsible business conduct, environmental sustainability, and human rights worldwide.

Above all, Canada dominates the international mining industry because the nation remains a powerful judicial and financial haven for corporations (Saunders, 2014). The Government of Canada protects the mining industry from corporate

violations through permissive domestic regulatory structures and voluntary accountability mechanisms (Deneault & Sacher, 2012).

The following section will provide a critical review of the effectiveness of Canadian mining accountability mechanisms in regulating their transnational corporations from human and environmental violations. We will shift from a description of the various types of mining discourse involved across the global industry to an institutional perspective, which provides a brief overview of Canadian international mining policies between 1999 and 2021.

Critical Review of Canadian Accountability Mechanisms, Policies, and Codes of Conduct

Canadian accountability mechanisms, policies & codes of conduct regarding foreign mining have evolved substantially since the late 1990s (See Figure 3.1). As one of the only binding legislations related to corporate accountability in Canada, the *Corruption of Foreign Public Officials Act* (1998) (CFPOA) makes it a criminal offence to bribe foreign public officials to gain business advantages (Harrington, 2019). The legislative scheme is primarily criticized for being a weak, deficient, and inadequately enforced legal mechanism (Mijares, 2014). In conjunction with Canada's historically unresponsive judicial system to white-collar crime, only four convictions have been undertaken through CFPOA throughout the 23 years of this legislation's existence (Harrington, 2019).

The Canadian government's dialogue on international corporate accountability began in 2005 when Indigenous Subanon community members from the



Figure 3.1 Timeline of the Government of Canada's accountability mechanisms, policies & codes of conduct related to Canadian mining operations abroad.

Philippines testified to the Canadian government on the alleged human and environmental rights abuses inflicted by Toronto Ventures Inc., a junior Canadian mining company (Coumans, 2010). This testimony marked the ground-breaking 2005 Standing Committee on Foreign Affairs and International Trade (SCFAIT) report, highlighting the lack of accountability mechanisms offered in Canada for Canadian corporations operating extraterritorially (SCFAIT, 2005). The report focused on enhanced regulatory reforms in the extractive industry, calling on the Canadian government to “establish clear legal norms in Canada” and hold Canadian companies accountable to environmental and human rights violations associated with their operations.

The SCFAIT report led to the government’s 2007 creation of the multi-stakeholder dialogue process known as the National Roundtables on CSR and the Canadian Extractive Industry in Developing Countries (CSR Roundtables) (Idemudia & Kwakyewah, 2018). In March 2009, the CSR Roundtables resulted in the first governmental CSR policy titled *Building the Canadian Advantage: A Corporate Social Responsibility Strategy for the Canadian International Extractive Sector*. The initial CSR policy centers host state weak governance discourse, highlighting, “Many countries face considerable capacity challenges in implementing extractive sector strategies, legislation and regulations that ensure investments and operations are socially and environmentally responsible; support the protection of human rights; and produce sustainable benefits for communities and industry” (Global Affairs Canada, 2009, para. 13). According to Coumans (2010), the Canadian Chamber of Commerce played a fundamental role in persuading the Canadian government to remove all human rights and binding corporate accountability within this CSR policy and instead focus on host state accountability.

By April 2009, Bill C-300, *An Act Respecting Corporate Accountability for the Activities of Mining, Oil or Gas in Developing Countries*, almost came into effect but failed to pass in a vote of 140 to 134. Bill C-300 remains a historically critical legislative piece as it sought to establish home state accountability and complaints mechanisms in Canada (Idemudia & Kwakyewah, 2018). The same year, an Extractive Sector Counsellor position was created to provide remedies to affected communities impacted by Canadian mining operations (Grégoire, 2019). Known as an industry insider and a strong affiliate of Barrick Gold, Marketa Evans was appointed as Canada’s first CSR Counsellor (Saunders, 2014). During their four years as Counsellor, they received six complaints, with five out of the six closed without resolution (Saunders, 2014). In 2015, a former Rio Tinto corporate official was appointed as the new CSR Counsellor. However, by 2018, the office closed permanently due to increasing scrutiny (Ciupa & Zalik, 2020).

In November 2014, the Government of Canada announced an enhanced version of its initial 2009 CSR Strategy titled, *Doing Business the Canadian Way: A Strategy to Advance Corporate Social Responsibility in Canada’s Extractive Sector Abroad* (Global Affairs Canada, 2021). Mining Watch Canada scrutinizes the Canadian government’s enhanced CSR strategy for lacking compliance mechanisms, transparency, accountability, sanction, and remedy (Mining Watch Canada, 2019). Furthermore, the CSO report states that the enhanced CSR

strategy possesses an absence in well-defined, measurable, or monitored reporting on a corporation's ability to achieve the outlined objectives related to upholding and respecting human rights abroad (Mining Watch Canada, 2019).

By December 2014, Canada's Extractive Sector Transparency Measures Act (ESTMA) was adopted (Global Affairs Canada, 2021). The ESTMA regulates corporations listed within the Canadian stock exchange to disclose financial information related to extractive exploration to governments in Canada and abroad (Mijares, 2014). Ciupa and Zalik (2020) claim that the lack of oversight, standardized reporting and excluded activities under the legislation showcases public relations management taking precedence over meaningful social regulation.

In January 2018, the Office of the Canadian Ombudsperson for Responsible Enterprise (CORE) was established to review and implement sanctions for alleged human and environmental rights abuses from Canadian corporations overseas (Global Affairs Canada, 2021). However, conflicting private interests are evident again as the appointed CORE, Sheri Meyerhoffer, possesses a history of lobbying and consulting for the oil industry (Ciupa & Zalik, 2020). Key concerns of the CORE office are related to the lack of independence of the Office from the extractive industry; insufficient judicial powers to compel evidence from or to investigate corporations; and inadequate safeguards to protect those filing complaints (Ciupa & Zalik, 2020).

Most recently, Global Affairs Canada reviewed the Enhanced CSR strategy of 2014 to create a renewed CSR approach for the period of 2021–2026 known as Responsible Business Conduct Abroad (RBC). RBC is a renewed version of the 2014 CSR Strategy. Canada's RBC approach champions the MAC's TSM initiative. MAC's TSM initiative has gained international recognition as a global best practice. Examples of MAC's TSM frameworks include protocols on Indigenous and Community Relationships, Climate Change, Tailings Management Protocol, and Safety and Health amongst several others (MAC, 2021). However, Mining Watch Canada's critical 2020 policy brief counters the corporate narrative by defining TSM as a "lagging standard", based on voluntary mechanisms where corporate members self-grade their performance within TSM's eight protocols (Coumans, 2020). Moreover, TSM lacks transparency, with only 22 out of 43 MAC members reporting their performance in 2019 and a lack of data on indicators used during grading processes (Coumans, 2020).

Each renewed version of Canadian CSR policy, since its inception in 2009, has been directly tied to government officials campaigning for voluntary mechanisms as the only viable option for accountability. It remains evident that Canadian governments have historically worked in tandem with corporations to implement weak accountability mechanisms in an effort to capitalize on the mining industry's exploitative practices.

The Case of Canadian Mining Operations in the Philippines

This section reviews Canadian state and corporate presence within the Philippines' mining industry. To illustrate previous discussion on how CSR policies manifest

at the institutional level, we examine how Canadian state and corporate forces use dominant mining discourses as an extension of power and influence within the host state's mineral governance and socio-economic capacities.

The Philippines' Socio-Economic Context—"Host State Weak Governance"

The Philippines is among the 18 mega-biodiverse countries globally possessing two-thirds of the earth's biodiversity (Magno, 2015). In conjunction, the nation's natural resource endowment is valued at approximately USD 1 trillion, ranking fifth in the world for mineral resources, including third in gold reserves, fourth in copper and fifth in nickel (Camba, 2016). Despite the archipelago's resource richness, most of the population remains economically poor (Magno, 2015). Moreover, the Philippines' current socio-political context is characterized by authoritarian populism and high regulatory capture, with state powers serving political and economic elites at the expense of the rule of law (Rodan, 2021). With the nation's rich resource endowment, stagnant economic growth, and decreasing democratic environment, the Philippines portrays a classic example of "host state weak governance".

The Philippines was subjugated to over 400 years of colonial ruling by Spain (1521–1898) and the United States (1899–1946) (Rodan, 2021). Since gaining sovereignty, the nation's political-economic structure has been characterized as a capitalist oligarchy, where "extreme concentrations of private wealth, power, and coercion have consolidated with capitalist development" (Rodan, 2021, p. 237). Throughout history, the nation has been ruled by kinship and elite family-based oligarchies found at all government leadership levels (Caouette, 2013). The country's political dynasties have skillfully consolidated acute concentrations of power and capital through bribery, political patronage, regulatory capture, and rent-seeking, amongst other forms of corrupt activities (Caouette, 2013). Export-led industrialization and neoliberal reforms also led to intensified inequalities in wealth and income. Despite the government's efforts to mobilize the mining industry as a catalyst for development, the sector contributes a minuscule 0.89% to the global domestic product (EITI, 2016). In relation, the Philippines' poverty incidence stands at 25%–26% at the national level and 30%–60% in large-scale mining provinces (Magno, 2015).

Alongside the rising economic inequalities, there remains long withstanding armed conflict characterized by rebel and extremist groups, primarily between the communist New People's Army, the Muslim-separatist Moro-Islamic Liberation Front and the Jihadist Abu Sayyaf Group (Croft & Felter, 2020; Holden, 2014). Human rights abuses heightened during the presidential election of Rodrigo Duterte in 2016, who implemented strong counter-campaigns against terrorism and illegal drugs (OHCHR, 2020). The state's implementation of a whole-of-the-nation approach to counterinsurgency resulted in a shrinking civic space, with the government using politicized armed forces to implement public order and national security. The government's efforts to silence dissent have led to a rise

in violent attacks, deaths, arrests, and lawsuits against human rights and land defenders (OHCHR, 2020).

The Philippines, a low-income mineral wealthy nation, possesses many domestic vulnerabilities associated with the resource curse, exemplified in the aforementioned corruption, poverty, and conflict. Host-state weak governance discourse states that such impending issues lead to developing nations' inability to translate their resource richness into economic prosperity. However, this discourse remains paternalistic and occidental-centric in nature, failing to acknowledge the archipelago's weak state did not materialize solely from its domestic actors. The rationalization of the Philippines' "weak governance" is systemic, transcending beyond the archipelago's borders. It is a product of over 400 years' worth of colonial legacies destabilizing the nation for its resources and restructuring its socio-political environment to the Global North's advantage.

Canada's Involvement within the Philippines Mining Industry

As of 2021, Canada and the Philippines' bilateral relations have been upheld for 71 years (Embassy of Canada in the Philippines, 2020). Alongside a history of Canadian presence manifest across the country, the archipelago's land and vast resource endowments continue to be sought after by capital-driven nations. The Philippines' neocolonial development perseveres as over 60% of national and transnational mines operate in ancestral territories (Simbulan, 2016). This section provides a critical historical perspective on the evolution and status of this relationship.

After a drop in mineral production in the 1970s–1980s, the World Bank and Asian Development Bank advised the Philippine state to reform the national mining act to better align with liberalization targets (Rovillos & Tauli-Corpuz, 2012). The United Nations Development Programme and World Bank-funded technical assistance research ultimately led to the creation of the 1995 Philippine Mining Act (Rovillos & Tauli-Corpuz, 2012). To this day, the neoliberal policy prescriptions within the 1995 *Philippine Mining Act* enable 100% foreign ownership of mining operations, which include various tax breaks and incentives to attract mining exploration (Magno, 2015).

Over 60% of Canada's development assistance to international financial institutions is put towards World Bank Group projects and initiatives (World Bank Group, 2021), making Canada highly involved in the support and funding of mining reforms such as the 1995 *Philippine Mining Act*. Canada also sits on the Asian Development Bank's Board of Directors and provides \$51.1 million annually to fund governments with assistance in reforming mining laws and tax regimes (Mining Watch Canada, 2012). It is not surprising that upon adopting the 1995 *Philippine Mining Act*, Canadian-owned Toronto Resource Development Inc. (TVIRD) became the first foreign-invested mining corporation in the Philippines (TVIRD, 2013). By 1996, foreign direct investment within the Philippines' mining industry increased by 400%, compared to the previous years (Camba, 2015).

A historically significant case of Canadian mining in the Philippines is exemplified by TVI Resource Development Inc. (TVIRD), a subsidiary of Calgary-based Toronto Ventures Inc., who operated in a 508-hectare area within Indigenous lands in Siocon, Zamboanga del Norte, Mindanao (TVIRD, 2013). Between 2008 and 2014, TVIRD operated in an area characterized by decades-long violent civil insurgency. Peter Sutherland, former Canadian Ambassador to the Philippines, held a strong relationship with the company and championed TVIRD for its success within the archipelago (Rovillos & Tauli-Corpus, 2012). There is also evidence that the Canadian International Development Agency (CIDA) provided financial support to TVIRD while the corporation was part of the violent conflict with Indigenous Subanon peoples, local farmers, and fisherfolk resisting mining in the region (CNCA, 2007).

The local Subanon peoples held a Certificate of Ancestral Domain Claim Title (CADT) within the area. A CADT is a formal legal recognition of Indigenous ownership over the territories identified. The affected Subanon community claimed that TVIRD provided inadequate Free, Prior, and Informed Consent (FPIC) processes and filed complaints against TVIRD at the United Nations and Canadian parliamentary levels (CNCA, 2007). The victims of corporate negligence reported several violent conflicts between TVIRD personnel and security forces, widespread displacement, and human rights and environmental violations (Brown, 2012; Sanz & Hansen, 2018). This TVIRD case was brought forward by Subanon locals to the Canadian parliament and spearheaded the 2005 SCAIT report. The recommendation to implement a moratorium on government advocacy for TVIRD operations was declined. Despite evidence of Canadian corporate negligence, project funding for TVI operations continued through CIDA's Canada Fund for Local Initiatives Program (CNCA, 2007).

Another critical case of Canadian mining misconduct in the Philippines is related to OceanaGold, a copper-gold Australian Canadian company. OceanaGold began its operations in 1992 in Didipio, Nueva Vizcaya, Luzon and continues to operate to this day despite strong resistance at the local level. In 2019, OceanaGold's Didipio Mine won five prestigious awards for sustainable mining, including the Platinum award for Best Environmental Excellence and the Silver Award for Best Workplace Practices at the Global CSR Summit Awards (OceanaGold, 2019). Likewise, the Mining Journal, the leading publication for global mining news by Aspermont Media Ltd., published a 2020 report, OceanaGold, Leading Social Performance in Gold Mining, which recognized OceanaGold as one of the top five companies in the international gold industry for its Environmental, Social and Governance impacts (Struss, 2020).

The OceanaGold (2019) sustainability report states, "We do not intentionally incite or support any persecution, and we do not operate our business in a way that raises the risk of persecution for indigenous (or non-indigenous) environmental and human rights defenders" (p. 23). However, evidence revealed by Broad et al. (2018) research on OceanaGold's Didipio mine proves otherwise. The comprehensive report outlines ten socio-environmental violations that should prompt the removal of OceanaGold in the Philippines. Among the violations

include the illegal and violent demolition of 187 houses with no compensation or resettlement options; the obstruction of significant roads and pathways for community members; polluted surface water; land loss; and extrajudicial killing and threats to community members resisting operations, amongst other forms of legal infractions (Broad et al., 2018). In April 2020, a VICE news report stated that Didipio community members created a barricade to block truck deliveries to the mine during the suspension of OceanaGold's operations in 2019 (Zoledziowski & Gutierrez, 2020). The authors report violent police force used upon 30 activists, with video evidence of police using riot shields to push and injure community members.

As a means of political suppression of dissent, the Philippines government employs widespread militarized violence against citizens exercising their rights to freedom of expression and assembly. The June 2020 United Nations High Commission Report on the Philippines' human rights situation disclosed 208 murders of human rights defenders, journalists and trade unionists between January 2015 to December 2019 (OHCHR, 2020). On March 5th, 2021, during an event by the National Task Force to End Local Communist Armed Conflict, President Duterte announced, "kill, kill them all" (Bolledo, 2021). Now marked as Bloody Sunday, two days later, on March 7, 2021, the police and military murdered nine activists and arrested six rights workers (Bolledo, 2021). Global Witness (2020) recognized the Philippines as the second deadliest place in the world to be an activist and land defender, with mining being the most dangerous sector globally. The Philippine government funds and trains state-sponsored militarization units to protect mining operations from resistance and opposition (Camba, 2015; Holden, 2014).

Canada states that upholding human rights remains crucial to foreign policy, yet the Canadian government has not yet released a public statement regarding the state of human rights and democracy in the Philippines. Moreover, in 2017, the Philippines adopted the Mining Association of Canada's TSM initiative (MAC, 2021). Due to the initiative's lack of transparency, a significant knowledge gap persists regarding the effectiveness of TSM in strengthening company-community relations and eliminating human and environmental rights violations in local mining regions.

In many ways, Canada is highly complicit in the Philippines' human rights abuses. Research has noted that Canadian transnational mining corporations have played a role in amplifying the Philippines's decades-long conflict by funding armed rebel groups who threaten to disturb operations. Crost and Felter (2020) suggest that due to increased competition within resource-rich areas, "a reform that increases investment in mining could have the direct effect of increasing extortion-related attacks on rebel positions. It could further have the indirect effect of increasing extortion revenue that rebels use to fund attacks on other targets" (p. 2). Such hypotheses align with research undertaken by Holden and Jacobson (2007) who highlight evidence of Canadian mining firm Echo Bay Mines providing over USD \$1.7 million of financial aid to armed groups such as the Moro-Islamic Liberation Front and Abu Sayyaf Group. As Canadian mining

corporations finance armed conflict, they contribute to and benefit from the destabilization of the archipelago's institutions.

Canada and the Philippines have also held a strong military training partnership since 1997, with over 150 personnel across the Armed Forces of the Philippines trained in Canada (Global Affairs Canada, 2014). In 2014, Canada and the Philippines signed a Memorandum of Understanding formalizing their defence training cooperation program, which creates opportunities for Filipino military personnel to be trained by the Canadian Armed Forces (Global Affairs Canada, 2014). In 2018, President Duterte signed a transaction agreement with Prime Minister Justin Trudeau to sell 16 Bell 412EPI combat utility helicopters to the Philippines, valued at \$233.36 million (Reuters, 2018).

Since 2016, the Duterte administration increased aerial military bombings on Indigenous communities to target “communist rebels” (Sambalud, 2018). For example, there have been twenty-one aerial bombardment cases on unarmed Indigenous civilians and Indigenous schools in southern Mindanao since 2016 (Sambalud, 2018). Understanding that helicopters would be used for Duterte's national campaign against terrorism, human rights advocacy groups scrutinized the Canadian government for actively supporting human rights violations through the provision of military aid. In 2019, Prime Minister Trudeau asked the Duterte administration if the helicopters would be used by the military. This resulted in Duterte cancelling the Canadian army equipment deal as the administration was not interested in Canada interfering with domestic policies (Pugliese, 2018).

Opportunities and Limitations

Throughout history, the exploitation of the archipelago's people and resources has developed the Global North at the expense of large segments of the Philippines' population. Corruption ensues within the nation's mining sector, with the benefits of extraction limited to domestic elites and international governmental and corporate actors. As conflict, human rights abuses, and environmental disasters caused by Canadian mining ravage across the Philippines, the Office of the CORE remains inactive. The absence of legal remedies in Canada for citizens seeking justice against corporate malfeasance underlines the government's complicity in the Philippines “human rights violations”.

This points to further research which needs to examine how Canadian CSR strategies may be serving profit maximization more than its intended purpose of protecting environments and livelihoods. The power of Canadian CSR policy lies in its ability to serve as an impression management tool for strengthening favorable investment climates while simultaneously obscuring the public's awareness of the corporate exploitation that occurs across borders. Future studies could also examine mandatory legal frameworks (e.g., human and environmental due diligence legislation), for Canadian mining companies and public institutions such as EDC, CPPIB, and TSX that provide financial support to mining corporations. Future research should also explore due diligence procedures which include accessible human rights impact assessments consistent with international

human rights standards and be undertaken by individuals who do not hold private interests within the mining industry.

Further, the cases of Canadian mining operations in the Philippines exemplified in this chapter are not exhaustive. The information provided in this chapter is limited to what has been reported within peer-reviewed articles and grey literature. As affected citizens are silenced due to the shrinking civil space within the archipelago, there is a possibility that several cases of Canadian corporate harm within the Philippines' extractive sector have not been publicized. Future studies should collect primary data that amplify affected community voices and lived experiences related to Canadian mining operations in the Philippines. Enhanced documentation and rigorous research can lead to greater home state accountability by sensitizing Canadian governments and citizens on the human rights violations occurring through public investments. Mounting concern over human rights violations, the integrity of responsibility reporting, and community mistrust have challenged the legitimacy of such CSR awards and recognitions.

Conclusion

Canada's role as a global leader in the mining industry means that government legislation dealing with corporate abuse abroad plays a critical role in regulating the sector internationally. Despite growing public pressures related to Canadian corporate misbehavior, strong support for ineffective CSR initiatives amongst governments and corporations dominate in the face of regulatory reform.

Our findings identify several Canadian home state governance gaps related to its utilization of CSR discourse:

- Driven by shared ideological and political commitments to liberalization, Canadian government agencies and corporations work in tandem to use CSR and host-state weak governance discourse to advance profit maximization and state de-regulation within the mining industries of developing states;
- Crown agencies such as Export Development Canada, the CPPIB and the TSX act as enabling instruments for Canadian public investments to finance negligent business enterprises;
- Canada, alongside other neo-imperial forces, have played an active role in destabilizing the Philippines socio-economic structures, which have led to its characterization as a "weak governance state"; and
- The Canadian government is complicit in the increasing human rights violations and deteriorating democracy in the Philippines, acting as an agent in fuelling the human rights crises. The Canadian state's complicity is evident in its lack of concrete commitment, actions, and laxity in monitoring the use of its technical, financial, and military aid.

We also examine dominant mining discourses through a narrative and institutional review of state and industry forces that use CSR discourse as an extension of power within the global mining sector. We found that the Philippines's

characterization as a “weak governance” state are the remnants of over four centuries of plunder and looting, with mixed legacies of colonial influence prevailing within the nation’s socio-economic and political realms. Structural power inequalities in favor of the Canadian mining sector have enabled its corporations to operationalize broad systemic violence and environmental devastation in the Philippines with impunity. This chapter points to high regulatory capture within the Canadian state, resulting in the lack of accountability mechanisms and legal remedies available for community members affected by Canadian mining operations. To ensure that human rights and community agency are upheld within host states, home-state accountability and binding compliance mechanisms should be enforced for Canadian transnational mining.

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4 Gender, indigeneity and mining

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Introduction

Resource extraction has played an enduring role in settler-Indigenous relations around the world. Historically, colonialism routinely dispossessed Indigenous Peoples of their lands in the pursuit of capital accumulation (Holden et al., 2011). This trend is perpetuated today in the global large-scale mining industry as both states and corporations continue to claim ownership over mineral rights within Indigenous lands (Bebbington, 2012; Ruhwii & Carter, 2016). While international agreements such as the International Labour Organization (ILO) Convention 169 and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) have affirmed Indigenous Peoples' rights to their traditional territories, states and corporations continue to exploit Indigenous land in violation of these rights in the pursuit of resource extraction, exacerbating social, economic, environmental, and cultural injustices (Khare, 2018).

Indigenous Peoples are particularly vulnerable to the social, environmental, and cultural costs of mining while often being excluded from the economic and employment benefits (Bebbington, 2012; Horowitz et al., 2018; Langton & Mazel, 2008). Their ability to participate meaningfully in decision making concerning resource development within their own territories is constrained by corporations and states that see Indigenous Peoples as barriers to overcome rather than partners (Gedicks, 2015; Koutouki et al., 2018). Bolstered by the growing national and international recognition of their rights to land, Indigenous Peoples have asserted their role in resource development decision-making (Dalseg et al., 2018) and their right to the protection and control of their lands, territories, and resources (Gedicks, 2015). Indigenous community opposition and resistance to the infringement of large-scale mining on their lands and traditional territories has resulted in extra costs, litigation, stalled projects, and, in some cases, the cancellation of resource development projects (O'Faircheallaigh, 2010; Gedicks, 2015; Owen, 2016; Ruhwii & Carter, 2016). Due to the externalities of project resistance by affected local and Indigenous communities, corporations are becoming increasingly hesitant to risk damage to their reputation, share prices, and earnings. Shareholders are also wary of investing significant capital in projects that risk opposition (Gedicks, 2015).

Internationally, mining corporations have been incentivized to use Corporate Social Responsibility (CSR) to secure their social license to operate (SLO) within Indigenous territories, ensuring the viability of their operations by garnering the support of external stakeholders (O’Faircheallaigh, 2010; Owen & Kemp, 2013). A social license can be considered an “unspoken” contract between mining companies and communities that expands corporate attention beyond shareholder interests to include the interests of local communities and other stakeholders involved (Ruhwii & Carter, 2016). The implicit assumption here is that acting responsibly in relation to a community lends legitimacy to a project (Parsons et al., 2014) and protects a company’s access to the resource being extracted (Owen, 2016). As a related concept, CSR is characterized by voluntary social and environmental initiatives undertaken by mining companies to fulfill ethical and philanthropic responsibilities (Ruhwii & Carter, 2016) and to reduce external negative impacts (Fordham & Robinson, 2018). CSR can provide a framework for companies to secure and fulfill a SLO (Khare, 2018). Internationally, CSR is one of the dominant driving forces behind relations between mining corporations and mine-affected communities as corporations aim to protect their access to resources (Ruhwii & Carter, 2016).

In the Canadian context, CSR does not appear to be the dominant language used in the literature when describing mechanisms shaping mine-Indigenous community relations domestically. Mine-community relations in Canada occur through a variety of processes. Often these relationships are tripartite, involving the state as legally necessitated through the duty to consult and the Environmental Assessment Act (now the Impact Assessment Act). While these formal processes involving the state have seen greater corporate involvement, they do not directly address CSR since they are statutorily mandatory duties held by the Crown while CSR, as defined above, is characterized as voluntarily upheld by corporations. Where mine-community relationships are bilateral, impact-benefit agreements (IBAs) are employed as the driving mechanism between mining corporations and communities. IBAs, which are generally not required by law,¹ can be linked to companies’ CSR strategies. IBAs differ in that they are legally binding private company-community contracts contrary to CSR which is considered “soft law” (Keenen et al., 2014; Gibson & O’Faircheallaigh, 2015). IBAs are the primary mechanism through which mining corporations in Canada are establishing a SLO on Indigenous lands. Rather than CSR agendas, agreements made through legal obligations held by the Crown and by bilateral contractual IBAs remain the dominant mechanisms driving mine-community, and necessarily mine-community-government, relations in Canada.

Throughout decision-making processes, Indigenous communities seek to both improve the benefits and reduce the costs that result from resource development projects. Unfortunately, these processes and their outcomes are not experienced universally within Indigenous communities. Evidence suggests that Indigenous women feel the impacts of resource development differently and more acutely relative to Indigenous men (Horowitz et al., 2018; Koutouki et al., 2018; Nightingale et al., 2017). Similarly, Indigenous women are less likely to experience

the benefits and opportunities posed by resource development (Hoogeveen et al., 2021; Horowitz et al., 2018; Keenen et al., 2014; Nightingale et al., 2017). Indigenous women are also often underrepresented in the decision-making roles and processes that may otherwise allow them to bring about a more equitable balance in the impacts and benefits of extractive projects (Hoogeveen et al., 2021; Horowitz et al., 2018; Mills & Sweeney, 2013).

This division of impacts and benefits as well as decision-making power along gendered lines presents not only a rights-based issue in resource development; it is also complicit in creating a dangerous situation for Indigenous women and girls that can increase their vulnerability and subject them to violence (Hoogeveen et al., 2021). The National Inquiry into Missing and Murdered Indigenous Women and Girls (NIMMIWG, 2019) determined a link between the culture of extractive industries and the current crisis of missing and murdered Indigenous women in Canada. Extractive industries were found to be associated with increases in violence against women, the sex trade, sex trafficking, and even abduction (Knott, 2018; NIMMIWG, 2019). Resultingly, the National Inquiry formed five calls to action² regarding women in all aspects of extractive industries. These calls to action draw attention to the importance of understanding the implications of the gendered distribution of impacts and benefits that result from extractive projects.

In response to the current crisis involving Indigenous women in the extractive industry, this review compiles available academic and grey literature that engages with the intersection of gender and Indigeneity within extractive industries, specifically focusing on the Canadian context while drawing cases from the international context. The focus of this chapter is to examine the gendered dimension of resource development with respect to its impacts and benefits on Indigenous communities and to examine gender in Crown-community consultations, environmental impact assessments (EIAs)/impact assessments (IA), and IBAs as the driving mechanisms behind mine-community relations. This chapter uses gender as an analytical lens to review literature on the distribution of economic benefits related to mining; the socio-cultural dimensions of resource development on women, community, and family; and participation in resource governance and decision making.

Gender as an Analytical Framework

There is a large body of literature that examines the impacts of resource development on women as well as the underrepresentation of women within these industries (see Dalseg et al., 2018; Hoogeveen et al., 2021; Lahiri-Dutt, 2011, 2015; Mills & Sweeney, 2013; Nightingale et al., 2017; O’Faircheallaigh, 2013). Much of this literature has framed the gendered impacts of resource development as happening “to” women without paying attention to how this discursively constructs an understanding of women as passive victims in resource development projects (Lahiri-Dutt, 2011, 2015; Laplonge, 2016). This generalizing approach tends to homogenize women as similar in their victimhood (Keenen et al., 2014) and reaffirm women as the “other” of mining (Lahiri-Dutt, 2015).

Lahiri-Dutt (2011) describes this phenomenon as “reminiscent of biological determinism and essentialism and ignorant of the specifics of social and material contexts or understandings of women” (p. 8 as cited in O’Faircheallaigh, 2013). Similarly, Indigenous Peoples are also commonly portrayed as victims of resource development (Cameron & Levitan, 2014). The intersection of the portrayal of both Indigenous and women as victims of resource development results in the double marginalization of Indigenous women in resource industries. Mills and Sweeney (2013) highlight that the representation of Indigenous women as victims promotes a colonial narrative that juxtaposes the experience of Indigenous women with that of Western women who become the model for emancipated and educated womanhood. Further, Dalseg et al. (2018) postulate that this portrayal of Indigenous women as victims of mining positions Indigenous women and traditional economies as obstacles to be dealt with rather than as meaningful components of complex sociocultural economies. This approach demonstrates a need to alter comprehension to one where women are regarded as key actors in resource development projects (Lahiri-Dutt, 2011).

Criticisms of the “impacts of mining on women” approach have led to calls to diminish the use of gender as a variable in favour of the use of gender as a framework (Dalseg et al., 2018; Keenen et al., 2014). Rather than understanding the gendered dimensions of resource extraction as “women’s issues,” it is important to comprehend that all aspects of resource development projects have gendered implications (Dalseg et al., 2018). Following Keenen et al. (2014), the concept of “gender” should be understood in its broadest sense as a dynamic sociocultural construction of the relationship between women and men accompanied by entrenched inequalities in power and opportunity. In denying the narrow understanding of women as a homogenous group, the concept of gender should also be understood as variably experienced and performed by those with intersecting memberships (Keenen et al., 2014). This is understood as Intersectionality, a feminist theory coined in 1989 by Kimberlé Williams Crenshaw and grounded in black feminist scholarship, Indigenous feminism, third world feminism, and queer and postcolonial theory (Hankivsky, 2012). Intersectional analysis is characterized by the idea that women live multiple, layered identities—such as sexuality, ethnicity, age, ability, race, education, marital status, geography, age, etc. (Kim-Puri, 2005)—derived from social relations, history, and structures of power (Kerr & Tindale, 2004). As such, the application of gender as an intersectional framework allows one to examine the variable impacts of mine development more critically within nuanced Indigenous communities—communities comprised of people with varying and intersecting identities that influence their experiences, power, and position. While this review intends to use gender as an intersectional framework, much of the literature covering gender in resource industries focus on Indigenous women and their relationship with men. As well, the current socioeconomic phenomenon of missing and murdered Indigenous women and girls and the identified ties with the extractive industry (NIMMIWG, 2019) warrants a careful exploration of the gendered implications of mining with a focus on Indigenous women.

Mining and Indigenous Women in Canada

Here, we explore key processes driving mine-community, and mine-community-government, relations in a way that is sensitive to the settler-colonial structures that influence these dynamics in Canada. For the sake of organization, literature will be synthesized following the three main perspectives that tend to characterize literature on gender and resource development as described by Mills et al. (2018): gendered distribution of economic impacts; gendered impacts of resource development on women, community, and family; and gendered participation in resource governance and decision making.

Gendered Distribution of Economic Impacts

Resource development projects are commonly regarded as an avenue for economic development in remote northern Indigenous communities. Though, contention exists around whether the economic opportunities presented by mining projects equate to economic development in Indigenous communities or whether the presence of mines in Indigenous territories is just another example of the “resource curse” thesis³ (See Holcombe & Kemp, 2020). Specifically, Graben et al. (2020) argue that, aside from inequitably distributed increases in income, little evidence suggests that resource development projects lead to greater socioeconomic or physical well-being for Indigenous women or Indigenous communities. Regardless of the contention surrounding the long-term economic benefits of mining on Indigenous communities, the literature suggests that Indigenous women are less likely to benefit from these opportunities (see Keenen et al., 2014) and more likely to experience negative repercussions (see Dalseg et al., 2018; Mills et al., 2018).

Employment is the most prominent economic opportunity introduced by resource development projects. Mines often provide employment opportunities with relatively high wages and on-the-job training in leadership and technical skills (Cameron & Levitan, 2014; Holcombe & Kemp, 2020; Nightingale et al., 2017) offering an economic base for Indigenous Peoples to maintain their socio-cultural vitality (O’Faircheallaigh, 2013). In their work in the Kivalliq District of Nunavut, Nightingale et al. (2017) found that Inuit women who were able to gain employment at the Agnico-Eagle Meadowbank gold mine were able to build independence (particularly financial independence), self-confidence, and employable skills while also having a strong incentive to complete school. Inuit people employed at the mine were found to be able to better provide for their family’s material needs, experience improved food security and an improved quality of life (Nightingale et al., 2017). Whether this socioeconomic improvement is reproduced in the long run and particularly after mine closures is a more contentious topic (see Holcombe & Kemp, 2020), the overall mine employment is celebrated as an opportunity for economic development in Indigenous communities.

Unfortunately, trends in the literature demonstrate that access to resource jobs is inequitably distributed between men and women, with Indigenous women, in particular, experiencing marginalization (Cox & Mills, 2015; Deonandan et al.,

2016; Gibson & O’Faircheallaigh, 2015; Koutouki et al., 2018; Lahiri-Dutt, 2011; Mills et al., 2018; Nightingale et al., 2017). Nightingale et al. (2017) describes data by Agnico-Eagle on their Meadowbank mine that showed that Inuit comprised 24.7% of the total permanent workforce and 71% of temporary employees while Inuit women comprised 6.5% of the permanent workforce and 35.1% of the temporary workforce. Consistently higher numbers of non-Indigenous Peoples, dominantly men, work in mines than Indigenous Peoples, though when Indigenous Peoples are employed, Indigenous men comprise much of the Indigenous workforce (Gibson et al., 2017; Nightingale et al., 2017). This has led to a widening income gap between women and men (Koutouki et al., 2018). While this gender disparity also applies to non-Indigenous women in mining, Indigenous women tend to be more heavily impacted by this exclusion due to the rarity of other employment opportunities in their remote communities (Mills et al., 2018). When Indigenous women are employed, they tend to be overrepresented in precarious and low-wage jobs with little scope for career improvement (Cox & Mills, 2015; Dalseg et al., 2018; Koutouki et al., 2018; Lahiri-Dutt, 2011; Mills et al., 2018). Lahiri-Dutt (2011) explains how women are often pigeonholed into certain types of occupations due to gender stereotyping which reinforces notions of biological essentialism, subsequently constraining women’s career prospects. This is demonstrated in the systematic exclusion of women from male-dominated positions in resource development—such as positions as apprentices, tradespersons, supervisors, and technicians—in favour of traditionally “female” jobs that involve cooking, cleaning, administration, and retail (Koutouki et al., 2018). Moreover, Mills et al. (2018) describe how Indigenous women in resource development industries were not only excluded from male-dominated positions but also from female-dominated administrative and clerical positions. Rather, Indigenous women were often selectively hired in low-paying traditional cleaning, cooking, and housekeeping occupations (Koutouki et al., 2018). Overall, trends in the literature demonstrate that Indigenous women are marginalized from the benefits of mine employment opportunities due to systemic discrimination based on their gender and Indigeneity as well as intersecting identities of age and education level.

The literature points to several systemic barriers that make it difficult for Indigenous women to gain meaningful employment within the mining sector in Canada. According to Mills et al. (2018), the social and cultural construction of mining as a masculine space is a key factor in the exclusion of women in resource industries. This constructed identity of mining as masculine is reproduced in a variety of ways. One such way is through gender stereotyping perpetuated through gendered expectations for youth which tend to translate into gendered training and career development opportunities that shape men for work in resource development and women for work in administration (Mills et al., 2018). Women who break out of these gendered career moulds to pursue work in resource development tend to be placed in precarious occupations, be tokenized by male employees, and experience work environments that are hostile towards them (Cox & Mills, 2015; Dalseg et al., 2018; Gibson et al., 2017; Lahiri-Dutt, 2011; Mills et al., 2018). The problems posed by the hostility of this work

environment are compounded by the lack of human rights and workplace health and safety training, particularly for Indigenous women in the workplace who experience the intersection of gender and race-based discrimination (Nightingale et al., 2017). Troublingly, hostility is often channelled through sexual harassment and even assault against women working in mining and mine camps (Lahiri-Dutt, 2015; Mills et al., 2018; NIMMIWG, 2019). Further, rotational shift-work common in the mining industry, combined with a lack of daycare services, marginalizes women who often bear the responsibility of childcare and increases their burden of responsibilities (Gibson et al., 2017). Women are also at increased risk of sexual harassment and assault due to the vulnerability inherent in shared sleeping quarters (Nightingale et al., 2017). Overall, the lack of education, training opportunities, childcare, safe and respectful work environments, and flexible scheduling that could enable women to benefit from resource industry employment demonstrate systemic barriers. These barriers disregard the rights of women to equitable employment opportunities and deny women the benefits of resource employment.

Another dominant mining-related economic opportunity for Indigenous communities takes the form of resource revenues from profit-sharing arrangements, compensation monies, and other rents that flow from mining companies to communities (Keenen et al., 2014; Mills et al., 2018). Minimal literature has examined how income generated from resource development benefits women, especially in the Canadian context. In the Australian context, O'Faircheallaigh (2007) assessed three models of income distribution and concluded that the allocation formula of only one model fairly considered the gendered risks carried by distinct parts of the population. This model involved the 50/50 division of a one-time lump sum payment between a women's and a men's fund as well as fixed annual payments and profit-related annual payments split between multiple community funds (O'Faircheallaigh as cited in Mills et al., 2018). This model places a portion of money directly under the control of Indigenous women in the community. Unfortunately, this is so far uncommon in the Canadian context. As well, new initiatives see Indigenous Peoples taking ownership of mining entities (Holcombe & Kemp, 2020). Though no studies, to the knowledge of these authors, have deeply explored the gendered distribution of related economic benefits or forms in which this sort of economic benefit can be distributed for Indigenous women to benefit. To provide a broader picture of the gendered economic impacts of resource development projects, there remains the need for greater research in the gendered distribution of resource revenues. Overall, literature tends to agree that Indigenous women are marginalized from the economic benefits of resource extraction projects.

Gendered Socio-Cultural Dimensions of Resource Development on Indigenous Women, Men, Community, and Family

The literature also strongly engages with the ways in which resource development projects produce gendered socio-cultural impacts on Indigenous Peoples at interconnected individual, family, and community levels. The widening income gap

between Indigenous women and men associated with the presence of extractive industries can have negative sociocultural impacts to the detriment of women (Mills et al., 2018). NIMMIWG (2019) found that the presence of mines near Indigenous communities can drive economic insecurity for Indigenous women who are often unable to participate in resource economies, yet still suffer from the externalities of high rates of inflation and housing shortages driven by resource booms. This economic disparity can leave women economically dependent on abusive partners or willing to pursue precarious and unsafe means of securing money to make ends meet (NIMMIWG, 2019). As well, sometimes in situations where women do gain employment, male partners control the use of the income, constraining the economic independence of the woman (NIMMIWG, 2019).

Rotational shift work is also commonly identified as producing gendered socio-cultural impacts that disproportionately affect Indigenous women and girls (Deonandan et al., 2016; Gibson et al., 2017; Nightingale et al., 2017; NIMMIWG, 2019). On this schedule, mine employees depart their communities to work at remote mine sites for several weeks at a time and then return home for several weeks of time off. Most of the research suggests that this model of employment puts significant stress on family dynamics (Deonandan et al., 2016; Horowitz et al., 2018; Mills et al., 2018; Nightingale et al., 2017). The absence of one parental figure due to shift work can impede family cohesion, affecting the relationship between spouses as well as that between children and their parents (Deonandan et al., 2016). When one partner leaves for several weeks of work at the mine, increased pressure is placed on the partner who remains at home with their children (Horowitz et al., 2018; Mills et al., 2018). Often the burden of this responsibility falls onto women since women are expected to assume the role of caregiver. Spouses hired at distant mine sites may spend their paychecks before returning home or may not even return home at all, neglecting their family and familial responsibilities (Mills et al., 2018). When spouses do return home, they are often drained from several long weeks of 12-hour workdays and have little capacity to engage with their family or to perform household chores which can cause tensions and feelings of neglect (Nightingale et al., 2017). Workers home on break may also turn to the abuse of drugs and alcohol, which can increase the incidence of violence (Gibson et al., 2017). Nightingale et al. (2017) explain that in the case of the Agnico-Eagle Meadowbank gold mine, abstinence and zero tolerance for drug possession were strictly enforced. The authors note the tendency for those who faced challenges with substance use to overindulge upon return to their community of Qamani'tuaq which corresponded with a rise of violence in the community, particularly against women. In circumstances where women participated in rotational shift work, concern revolved around how their children and households were being maintained by their spouse at home, placing increased psychological stress on these women (Nightingale et al., 2017). Overall, participation of communities in rotational mine employment is perceived to increase the pressure and burden of familial responsibility on women; alter family dynamics; increase incidences of neglect and violence; and impede the participation of women in the mine workforce (Horowitz et al., 2018).

Gendered implications also exist when communities agree that a mining camp should be located within their territories. Industrial camps can bring benefits to co-located communities by providing employment opportunities, supporting local businesses, investing in local infrastructure, and attracting and retaining nation members to their home territories (Gibson et al., 2017). Unfortunately, the co-location of these camps with Indigenous communities creates an influx of transient workers (generally non-Indigenous males) into these areas. Resultingly, gendered impacts that predominantly affect women and children occur such as increasing incidences of alcohol and drug abuse; sexual harassment and assault; sexually transmitted diseases; and sex trafficking⁴ and sex work (Bond & Quinlan, 2018; Gibson et al., 2017; Knott, 2018; NIMMIWG, 2019; Women's Earth Alliance and Native Youth Sexual Health Network, 2016). Transient workers are concentrated in so-called man camps—temporary housing set up around resource extraction sites—which put this dominantly male, heterosexual population in close contact with Indigenous women and girls (NIMMIWG, 2019). Gibson et al. (2017) describe how the hyper-masculinity of “Rigger Culture”⁵ associated with these “man camps” creates a context in which workers may conduct themselves differently than they might in their home communities. This context combined with the increased prevalence of drug and alcohol abuse in mine camps creates complex sexual dynamics that too often result in violent outcomes for local Indigenous women and girls (Gibson et al., 2017).

Subsistence and/or artisanal production are also often undermined by resource industries (Bond & Quinlan, 2018) which shift economic activities away from traditional economies and towards market-based economies (Mills et al., 2018). While the increase in disposable income associated with mine employment can equate to more money for subsistence supplies, less value is placed on subsistence activities by those engaged in mine work (Dalseg et al., 2018; Mills et al., 2018). As well, time spent doing mine work may impede people's ability to participate in subsistence activities (Deonandan et al., 2016). Further, the geographical area that a mine occupies as well as the environmental degradation that often results from resource extraction can lead to a depleted resource base for subsistence practices (Ahmad & Lahiri-Dutt, 2006; Deonandan et al., 2016; Mills et al., 2018). Various works have illustrated the vital role that subsistence plays in maintaining tradition and social networks and in promoting individual and community well-being (see Gerlach & Loring, 2013; Parlee et al., 2005). As the mixed economy tips in favour of male-dominated resource sectors, women's important roles in subsistence are undermined (Lahiri-Dutt, 2015; Mills et al., 2018). Indigenous women have raised concerns about the effects of this shift on the ability of present and future generations to participate on the land and in traditional economic activities (Dalseg et al., 2018; Nightingale et al., 2017). This reduction in knowledge and practice of traditional economic activities can erode culture and social networks between family and community members and support detrimental sociocultural norms of abuse and violence against women (Deonandan et al., 2016). This is significant because these social networks can provide social protection, particularly for women, from the adverse impacts of mining. Moreover, the shift towards

male-dominated resource economies can undermine the significant role women play in traditional economies (Deonandan et al., 2016; Mills et al., 2018).

Health is also commonly affected by resource development projects. Understanding the disruption of subsistence activities discussed above, a reduction in the consumption of traditional wild foods in favour of store-bought processed foods often occurs in mine adjacent communities (Deonandan et al., 2016). Nightingale et al. (2017) emphasize how country foods are extremely healthy and culturally preferred in comparison to store-bought foods. A study by Deonandan et al. (2016) revealed how a transition from country food to store bought food may negatively affect food security and nutrition. Though, the same study (Deonandan et al., 2016) also revealed that several members of the study expressed cautious optimism that through job creation healthy food might become more available within communities. Nightingale et al. (2017) similarly described how mining employment led to the increased availability of money for food. Of course, understanding the unequal distribution of mine employment, the link between mine employment and improved affordability of food is far from universal. Koutouki et al. (2018) draw attention to the unevenness of employment benefits (which exists along gendered lines) as well as the link between broad increases in disposable income and rising inflation. These connections increase the risk of impoverishment for female-headed households (Koutouki et al., 2018). Further, Mills et al. (2018) and Koutouki et al. (2018) both present concern over the gendered impacts of food insecurity, emphasizing how women are more likely to report skipping meals and reducing food intake to make sure the rest of their family has enough to eat. The Women's Earth Alliance and Native Youth Sexual Health Network (2016) emphasize the connection between extractive industries and negative effects on women's reproductive and bodily health. This connection has been tied to the rise in environmental contaminants (Women's Earth Alliance and Native Youth Sexual Health Network, 2016) as well as to the increased prevalence of sexually transmitted infections related to the mine related sex trade (NIMMIWG, 2019). These impacts are further exacerbated by the presence of health services that are often stretched thin (often predating but worsened by the influx of mine workers) (Gibson et al., 2017).

Gendered Participation in Resource Governance and Decision Making

With the rising international recognition of Indigenous rights and the increasing capacity of Indigenous Peoples to successfully oppose resource extraction projects, Indigenous Peoples have increasingly gained influence over the terms upon which resource development occurs within their territories (Natcher and Brunet, 2020; O'Faircheallaigh, 2013). This capacity allows Indigenous Peoples to more effectively combat the persistent colonial legacies that continue to play out in the distribution of extraction's benefits and costs.

Indigenous women have been disproportionately excluded from the benefits of resource development and forced to bear its costs. Likewise, the dominant view in

the literature is that Indigenous women are underrepresented in decision-making and negotiation processes concerning major resource projects on Indigenous lands (Bond & Quinlan, 2018; Dalseg et al., 2018; Mills et al., 2018). Indigenous women and men do not begin their relationship with these processes in positions of equal political and economic power (Graben et al., 2020). As a result, academics are calling for the incorporation of gender-based practices, in consultation with Indigenous women, into these resource governance and decision-making processes to improve outcomes for Indigenous women (Bond & Quinlan, 2018; Dalseg et al., 2018; Keenen et al., 2014; Hoogeveen et al., 2021). As the main mechanisms driving mine-community relationships in Canada, this section will apply a gendered lens to a review of the literature examining gendered participation in Crown-community consultations, environmental impact assessments (now impact assessment, IA), and IBAs.

A Gendered Review of Legal Mechanism for Engagement in Canada

Crown Duty to Consult and Accommodate

The duty to consult, and if necessary, accommodate, is an obligation held by the Crown to protect Aboriginal and treaty rights as enshrined in Section 35(1) of the Canadian Constitution Act, 1982 (Koutouki et al., 2018). The duty to consult is triggered when the Crown has knowledge, real or constructive, of the potential existence of the Aboriginal right or title and contemplates conduct that might adversely affect it (Anaya, 2014). Constructive knowledge pertains to “knowledge of Aboriginal rights that arises when lands are known or reasonably suspected to have been traditionally occupied by an Indigenous group or when an impact on these rights can be anticipated” (Koutouki et al., 2018, p. 70). This right does not have to be proven but must be credible; the standard to trigger the duty to consult has a low threshold (Koutouki et al., 2018). Once triggered, the requirement for what constitutes proper consultation and accommodation exists along a spectrum related to the strength of the claim and expected impact (Barretto & Lahaie, 2019) as has been determined through Canadian case law (Koutouki et al., 2018). It is understood that the government and Indigenous Peoples have an obligation to negotiate in good faith to balance the interests of each party (Koutouki et al., 2018). It is important to note that the Supreme Court of Canada has established that the duty to consult and accommodate does not equate to a veto. Though, if free and prior informed consent (FPIC),⁶ as recognized by UNDRIP, is not obtained, the Crown must demonstrate that it has balanced the interests of affected Indigenous groups with the broader public interest (Koutouki et al., 2018). Effectively, the focus of the duty to consult is placed on the process and not the outcome; if reasonable, good faith efforts to inform, consult, and, at times, accommodate are carried out, justice is seen to be done (ReconciliAction YEG, 2018). This has led to doubt around the meaningfulness of consultation processes (Anaya, 2014; Cameron & Levitan, 2014; ReconciliAction YEG, 2018).

It is important to understand the entities that are commonly involved in Crown consultation processes. The duty to consult and accommodate rests solely with the Crown (Koutouki et al., 2018). Since natural resources on public lands are under provincial jurisdiction and Indigenous Peoples, under the Indian Act, are under federal jurisdiction, the duty to consult and accommodate with Indigenous Peoples concerning resource development projects implicates both orders of government (Anaya, 2014). Legally the Crown can delegate procedural aspects of the duty to consult to third parties including corporations and institutions of public government (Cameron & Levitan, 2014). Though, third parties are under no legal obligation to consult and accommodate Indigenous Peoples (Cameron & Levitan, 2014). Regardless of who performs the procedural aspects of the duty to consult, the unequal footing upon which parties stand is indicative of unfairness in the consultation process (ReconciliAction YEG, 2018). Governments and corporations have vastly different monetary, legal, and consulting resources at their disposal and often begin the consultation process once substantial project proposals have been created (Cameron & Levitan, 2014). In contrast, Indigenous communities often have significantly less resources at their disposal, are overwhelmed with numerous requests for consultation, and are given a short timeline to review the project and compile their inputs (Anaya, 2014). Resultingly, Indigenous communities are commonly disadvantaged in these “good faith” negotiations.

The Canadian courts have interpreted Aboriginal and treaty rights as collectively held and have determined that the duty is owed to Aboriginal communities, not to individuals (Peach, 2016). As a result, the duty to consult and accommodate occurs at the community level, focusing on Indigenous communities with little regard for the different interests of marginalized groups, particularly women. Band councils are often the most easily recognized government to select as consultation partners by representatives of the Crown; several court cases have determined that democratically elected representatives should be given priority in consultations (see Peach, 2016). Promoting band councils as the primary legitimate authority over Indigenous communities in consultation processes has gendered implications. Despite centuries in which Indigenous women played central roles in Indigenous governance structures and decision-making, the colonial patriarchal system behind the Indian Act and the band structure assumed that women had no capacity for political involvement (Hanson, n.d.). As such, band councils were created as strictly male domain and women were prohibited from becoming chiefs and band councillors until the Indian Act was amended in 1951 (Joseph, 2018). Resultingly, Indigenous women were denied the formal right to participate politically (NIMMIWG, 2019). Moreover, The Indian Act regulated Indian status patrilineally, systematically dispossessing Indigenous women—and their children—of their Indian status if they married a non-Indian (NIMMIWG, 2019). Those who did regain their status with subsequent amendments to the Indian Act often met resistance to their re-integration from Indian Act bands (Graben et al., 2020). This history of systemic gender discrimination has had downstream effects that have resulted in the exceptionally low political representation of

women in band councils (Graben et al., 2020) resulting in the marginalization of women's voices in negotiations (Deonandan et al., 2016).⁷ As a result, Indigenous women's interests are often poorly represented in consultation processes. The legacy of these sexist and colonial policies on the formal political participation of Indigenous women also pervades women's participation in other negotiation processes (Graben et al., 2020).

Environmental Impact Assessment

Another key legal and regulatory requirement that influences mine-community relations in Canada is the environmental impact assessment process (EIA) (IA).⁸ EIAs were initially conceived of as a mechanism for environmental regulation that aimed to limit the impacts of large-scale industrial development (Muldoon et al., 2020). The scope of EIAs evolved over time to encompass diverse environmental and socio-economic impacts of potential development projects as a form of sound environmental planning and decision-making (Muldoon et al., 2020).⁹ Often, the Crown relies on EIA processes to fulfill the duty to consult with Indigenous Peoples who have interests in a project or who have established or asserted Aboriginal and treaty rights that may be impacted by a project (ReconciliAction YEG, 2018).

A small but growing body of research has examined how the gendered nature of environmental decision-making processes, such as EIAs, marginalizes Indigenous women from resource development decision-making processes (Bond & Quinlan, 2018; Cox & Mills, 2015; Dalseg et al., 2018; Nightingale et al., 2017). This is significant because "these processes influence how development proceeds, how benefits are distributed within and among communities, and how negative effects are mitigated" (Dalseg et al., 2018, p. 136). Thus, the meaningful inclusion of Indigenous women in environmental assessments is central to achieving socially equitable resource development outcomes (Cox & Mills, 2015).

In their study, Cox and Mills (2015) examine how Inuit and Innu women's participation in environmental assessment processes influenced EA recommendations at Voisey's Bay Nickel Mine in Labrador. Women were regularly active in the Voisey's Bay EA process. Four Indigenous women's groups received funding from the Canadian Environmental Assessment Agency (CEAA) to participate in scoping meetings where they made collective submissions on a variety of topics. Employment and training were prominently featured in submissions by Indigenous women's groups. Despite the clear submissions made by these groups, the environmental impact statement (EIS) reduced concerns to prioritizing women in the hiring process with no incorporation of measurable goals to evaluate success. Requests for affirmative action to address barriers to employment such as lack of child-care and rotational employment were dismissed by the Voisey's Bay Nickel Company (VBNC) who myopically (and without any sensitivity to gender) assumed that jobs would reduce social problems in communities. Further, in reaction to the EIS, the CEAA only funded one of the women's groups to draft a response submission. By the end of the EIA process, VBNC had

drafted a women's employment plan that minimally considered the submissions of the four women's groups. The draft plan stated that it sought to achieve gender diversity in the workplace "based upon interest and capacity which implies that in some occupations there would be no capacity for women and no interest from them" (Cox & Mills, 2015, p. 252). The federal review panel released its final report with 107 recommendations of which only 3 mentioned women. These recommendations included establishing workshops to respond to the concerns of women, revising the women's employment plan, and including a harassment plan as well as language about childcare during training and employment.

Despite the active participation of women in the EA process, Cox and Mills (2015) found that women working at the site experienced gendered employment barriers similar to women working in resource development elsewhere. Indigenous women still predominantly worked in precarious, low-paying jobs, had limited training and promotion opportunities, and felt (and were treated) as if they were token hires.¹⁰ Overall, the outcomes of this study challenge the assumption that increasing the breadth and quality of public participation will improve resource development outcomes for Indigenous women. Further, implicit in the absence of attention to women's employment is the masculinity and racism within mine culture "that positions Indigenous women workers as less skilled than their white male counterparts" (Cox & Mills, 2015, p. 256). Decision-making processes regarding resource development must incorporate intersectionality and challenge the systemic barriers posed by sexism and racism to achieve more equitable outcomes, particularly for Indigenous women.

Dalseg et al. (2018) compare three EA cases—Voisey's Bay Mine and Mill in Nunatsiavut, the Meadowbank Mine in Nunavut, and the Mackenzie Gas project—to examine how resource decision-making processes in Indigenous mixed economies are gendered. In this review of EIA processes, it was found that Indigenous women experienced many barriers to their participation in resource management which included: a sense of exclusion and alienation from the EIA process; lack of sufficient information to speak in confidence at meetings and panels or, conversely, informational burden resulting from the need to review and digest copious material in a short amount of time; not having enough time for community consultation during the negotiation process; inadequate childcare; and the lack of timely funding to participate in consultations. When Indigenous women were made a part of these EIA processes, their input on resource-development was strongly influenced by the burden they felt from past and present colonial interventions. Their concerns often focused on how the extractive project might influence livelihoods, social relations, culture, and subsistence harvest. Yet, the outcomes of the EIA processes reviewed in this study emphasized women's participation in employment rather than these other important factors raised by Indigenous women. Further, the study found that traditional knowledge was routinely ignored aside from activities problematically constructed as masculine such as hunting and land travel. Other views on the importance of diverse traditional subsistence activities, and of being out on the land, were disregarded. Dalseg et al. (2018) argue that this reinforces (westernized) gender hierarchies and undermines Indigenous mixed economies. Overall, Dalseg et al. (2018)

suggest that the failure to include Indigenous women as full participants and community members on par with men in EIA consultation processes represents a lapse in fulfillment of the Crown's constitutionally enshrined duty to consult.

As a result of the limited inclusion of women, as well as the gendered impacts of resource development, scholars have been widely promoting the use of gender-based analysis throughout environmental decision-making processes (Cox & Mills, 2015; Mills et al., 2018; Nightingale et al., 2017). A Federal review aimed at improving the regulatory and assessment process of the Canadian Environmental Assessment Act (2012) led to its repeal and to its subsequent replacement by the Canadian Impact Assessment Act (2019). Bond (2019) posited that “inclusive impact assessment processes must recognize that Indigenous Peoples are not homogenous groups and that intersectionally vulnerable persons in Indigenous communities (women, children, LGBTQ2S+) are differently affected by industrial projects” (p. 4). This intention is entrenched in Section 22 (s) of Canada's Impact Assessment Act (2019)—which states that impact assessments must consider the intersection of sex and gender with other identity factors—as well as associated guidance for implementing gender-based analysis plus (GBA+) (Bond, 2019). The Government of Canada (2021) defines GBA+ as follows:

GBA+ is an analytical process that provides a rigorous method for the assessment of systemic inequalities, as well as a means to assess how diverse groups of women, men, and gender diverse people may experience policies, programs, and initiatives. The “plus” in GBA+ acknowledges that GBA+ is not just about differences between biological (sexes) and socio-cultural (genders). We all have multiple characteristics that intersect and contribute to who we are. GBA+ considers many other identity factors such as race, ethnicity, religion, age, and mental or physical disability, and how the interaction between these factors influences the way we might experience government policies and initiatives.

(para. 2)

A review of the literature on operationalizing GBA+ in IA by Hooegeveen et al. (2021) prescribes the following key components of an inclusive, gender-sensitive IA process:

Meaningful and representative involvement with communities adjacent to project sites, including subgroups that have been historically underserved by IAs like women's and LGBTQ2S+ groups, throughout all IA phases; inclusion of Indigenous knowledge and ways of being during the development of indicators, valued components, or measurements; community-led contextual analysis that begins at baseline to ensure proponent scoping and analysis relevant to individuals affected by extractive projects; and, greater emphasis on Queer and Indigenous guidance in federal policy mandates aimed to implement GBA+ in IA.

(p. 7)

Given the tendency of EIAs to marginalize Indigenous women in resource governance decision-making, the implementation of GBA+ in IAs appears to be a promising response towards a more intersectional approach to environmentally, socially, and culturally sensitive impact assessments.

Impact-Benefit Agreements

IBAs are another key component of resource development decision-making involving projects on traditional Indigenous territories. According to Cameron & Levitan (2014), IBAs are “bilateral contractual agreements... between Indigenous communities and mining companies seeking to extract resources from their traditional territory” (p. 25). These legally binding private company-community agreements are becoming a common mechanism for managing mining impacts and ensuring mine-derived benefits in jurisdictions with legal recognition of customary land rights (Bradshaw et al., 2018; Keenen et al., 2014; Gibson & O’Faircheallaigh, 2015). IBAs are often referred to as “supraregulatory” since they are accessory to state regulations, policies, and practices (Galbraith et al., 2007). Further, IBAs can provide a “social licence to operate”¹¹ by supplementing tenure provided by Crown land leases with formal permission from Indigenous governments (Cameron & Levitan, 2014).¹² As well, IBAs are increasingly being used to fulfill procedural aspects of the duty to consult as the Crown downloads much of this obligation onto industry proponents (Bradshaw et al., 2018; Cameron & Levitan, 2014; Gibson & O’Faircheallaigh, 2015).

As private agreements, IBAs are kept confidential which can make research on IBA participation and outcomes difficult (O’Faircheallaigh, 2011). Resultingly, the body of research examining the gendered dimensions of IBA processes is limited (Keenen et al., 2014). As well, since the regulatory function of IBAs often overlaps with EAs (Cox & Mills, 2015; Gibson & O’Faircheallaigh, 2015), literature examining the gendered dimensions of both environmental decision-making processes tends to overlap.

Some scholars have celebrated IBAs as an instrument to address the areas in which EA negotiations have fallen short (Galbraith et al., 2007; O’Faircheallaigh, 2011). Others have problematized IBAs for the way that they overlap¹³ with the regulatory function of EAs (Bradshaw et al., 2018), often to the detriment of both processes (Cox & Mills, 2015). In the case of the Voisey’s Bay Nickel Mine, Cox and Mills (2015) found that the co-occurrence of EA and IBA processes negatively influenced the outcomes of submissions made by Indigenous women throughout the EA process. For example, socioeconomic concerns—such as women’s employment—that were voiced by women in the EA process were slated for improved adoption in parallel IBA processes. Unfortunately, confidentiality clauses and weaker requirements for transparency in IBA processes made it difficult to monitor whether related provisions were adopted in the IBA. Resultingly, though the Voisey’s Bay IBA prioritized the employment of Indigenous women, this focus was not codified in collective agreements (and so not made expressly public), or other hiring and promotional tools used by contractors, companies, and unions. While interactions between

EA and IBA negotiations are diverse and often case-based, this example from Cox and Mills (2015) directs attention towards how these regulatory mechanisms can negatively interact to the detriment of marginalized groups. Thus, attention should be paid to how the interactions of these two mechanisms influence negotiations.

In terms of the participation of women in IBAs specifically, a study by Keenen et al. (2014) found that the roles of women in negotiations were diverse and context-specific. The study determined that women's overall participation was perceived as lower in contexts where the local culture of either the community or company had a highly patriarchal gender dynamic¹⁴ and where the colonial legacy had resulted in the loss of women's traditional rights to make decisions about the land. As well, the study found that gender intersected with other factors that resulted in sub-groups that were excluded from agreement processes, these included: "middle-aged women who had yet to acquire the status of 'elder,' young women and young mothers; women (and their families) who migrated or married into the community; women in male-headed households; and female-headed households (widows and single mothers)" (p. 611). Socio-economic factors such as lack of education; child and elder care responsibilities; poor health; personal economic dependence; and lack of time and autonomy were also determined to be factors that often led to women's exclusion from negotiation processes. In contrast, the study found that women's participation was perceived as greater in more equitable cultures as well as in formal negotiation processes where negotiation teams were more diverse, where companies approached agreements as long-term mechanisms for engagement and relationship-building, and where negotiations were participatory in nature.

In their work, O'Faircheallaigh (2011) argued that research identifying Indigenous women as excluded from negotiations is often oversimplified. He emphasized that it is important to first look critically at the concept of "negotiation" explaining that there is a tendency to adopt a narrow definition of negotiation in research examining the gendered participation in IBA negotiations. O'Faircheallaigh (2011) elaborates that:

The general and implicit assumption appears to be that negotiation involves a process of (usually formal) discussion, in which representatives of the parties (mining companies, affected indigenous groups and in some cases government) exchange positions and, over time, reach an agreement that represents the end point of the negotiation. It can be argued that negotiation in fact involves much more than this.

(p. 92)

Similarly, Keenen et al. (2014) describe the process of agreement making as including both formal and informal components such as "agenda setting, consultation, consensus building, awareness-raising, and planning, alongside formal discussions that occur at the negotiation table" (p. 610). It is important to examine women's roles in broader aspects of the negotiation process rather than simply what occurs at the formal negotiation table.

Examining the role of Indigenous women in the broader aspects of the negotiation process, O’Faircheallaigh (2011) specifically identifies agenda setting—a stage wherein issues to include in formal negotiations are determined—as critical, and even sometimes “more important than the capacity to determine outcomes in relation to the issues that do make it on the table” (p. 92). Many Indigenous women and women’s groups have participated influentially in steering committees, playing central roles in agenda-setting (O’Faircheallaigh, 2011; 2013). Through these informal processes, Indigenous women were able to influence the principal issues to be emphasized in formal negotiations. Several Indigenous women have also held the role of chief negotiator in negotiation processes in Canada¹⁵ (Graben et al., 2020; O’Faircheallaigh, 2013). While the representation of women in these roles appears promising, there was not sufficient literature to determine if this is an indication of an increasing trend. Though, Indigenous women still tend to be underrepresented in these processes than their male counterparts (Graben et al., 2020).

Whether the inclusion of Indigenous women and their inputs in negotiation processes translates into positive outcomes for Indigenous women and girls is another important question raised in the literature. Nightingale et al. (2017) found that in the case of the Meadowbank mine and the Inuit Impact-Benefit Agreement (IIBA), none of the needs outlined in the agreement manifested in concrete programs, services, or actions despite the transfer of funds from the mining company to the regional Inuit association. Cox & Mills (2015) similarly noted that despite the involvement of women as key participants in negotiations, the Voisey’s Bay IBA incorporated women’s interests minimally in its final terms. As well, the findings of a literature review by Deonandan et al. (2016) suggest that ensuring broad participation is not enough and that focus should also encompass the translation of this participation into meaningful outcomes for Indigenous women. Overall, the literature revealed that the participation of Indigenous women within these negotiation processes does not guarantee gender-sensitive outcomes. Future research should explore how the participation and input of Indigenous women can be better translated into the implementation and outcomes of IBAs to inform change in practice.

Conclusion

This chapter reviewed literature at the intersection of gender and Indigeneity within extractive industries, with a specific focus on the Canadian context. Particularly, it examined the gendered impacts of resource development with respect to how impacts and benefits are distributed along gendered lines and examined gendered participation in Crown-community consultations, environmental impact assessments/impact assessments, and (IBAs) as the driving mechanisms behind mine-community relations in Canada. The literature revealed that Indigenous women in Canada disproportionately bear the impacts of resource development while being excluded from many of the benefits and are underrepresented in related decision-making and negotiation processes. It is important to

note as well that the literature is limited and, in places, dated, demonstrating a need for more research in this area.

According to the reviewed literature, access to resource employment is inequitably distributed between men and women with Indigenous women in particular experiencing marginalization that results in their overrepresentation in low paying, precarious jobs with few prospects for upward mobility as well as in experiences of violence, harassment, and gender-stereotyping. Proposed solutions to fix the underrepresentation of Indigenous women in the workplace tend to focus on hiring strategies rather than on increasing training opportunities for women, creating gender- and culturally- sensitive workplace safety strategies, challenging the masculine culture of the industry, and providing childcare (and eldercare) services and social supports.

As well, the review found that Indigenous women experience many negative socio-cultural impacts resulting from the development of extractive industries on their traditional territories. The increase of incoming money from mine employment can cause inflation and create disparity in incomes between Indigenous women and their partners, both factors that can put women in vulnerable situations of economic dependence and compromise their food security and overall ability to support themselves. The hyper-masculine culture present at mine camps puts Indigenous women at increased risk of violence, sex-trafficking, and STIs; it also creates an environment conducive to the sex trade and can result in lateral violence from Indigenous men who themselves are prone to abuse and discrimination in the workplace. The rotational employment structure common in mines often puts pressure on family dynamics, increases the care burden placed on Indigenous women, increases psychological stress, and puts women employees in dangerous proximity to male sleeping quarters. The co-location of mines and/or the increased prominence of the wage economy as a result of mines can undermine subsistence activities which can negatively impact traditional social support networks, threaten cultural transmission, the consumption of healthy wild foods, and subvert the role of women in what were predominantly subsistence economies. Thus, when resource extraction projects are promoted for their ability to introduce new employment opportunities to remote Indigenous communities, it is important to be critical of who will benefit from these opportunities and how these opportunities might impact socio-cultural and economic dynamics within the affected community, particularly regarding gender.

This review also found that Indigenous women were often underrepresented in consultation and negotiation processes—including duty to consult, EAs, and IBAs—that sought to balance the outcomes of resource development projects in favour of Indigenous communities. This was related to the influence of sexist colonial policies on women's participation in Indigenous band governments since band councils have been recognized as the main and legitimate authorities representing Indigenous communities in consultation and negotiation processes. Literature on EAs and IBAs found that Indigenous women tended to be inequitably represented in negotiation processes. Though, it is important to highlight Indigenous women have played critical roles as chief negotiators as well as in

steering the negotiation agenda in several negotiation processes. Defining the scope of the definition of negotiations more broadly in future research may reveal a greater representation of Indigenous women in informal stages of negotiations. As well, future research should examine more critically how the participation and input of Indigenous women can be better translated into the implementation and outcomes of IBAs. Overall, it is important to understand that these consultation and negotiation processes can be complicit in the marginalization of Indigenous women's political roles and interests in resource development projects. Future research could explore how more gender sensitive consultation and negotiation processes might be introduced to limit the negative impacts related to resource development projects that are felt by Indigenous women and to make more equitable the distribution of benefits.

Overall, we believe that practitioners and policy makers must move beyond the discourse of women as passive victims who have been impacted by mining and instead challenge the patriarchal relationships that tend to dominate extractive industries (Sinclair, 2021). Indigenous women are not intrinsically vulnerable and passive victims of resource development. Rather, they hold positions of power and prominence in their communities and nations—positions that have been heavily impacted by a patriarchal, colonial, and capitalist system that promotes resource extraction over the well-being and health of Indigenous Peoples, particularly women. Given the call to action and justice from the NIMMIQG report for more equitable resource development outcomes for Indigenous women and girls, further research and, more importantly, implementation are crucial. Not only is it necessary to increase the representation and meaningful participation of Indigenous women in decision-making and negotiation processes, but it is also critical that this participation translates into positive development outcomes for Indigenous women and girls. As well, it is important that Indigenous women define what meaningful and successful participation means to them in the context of their community and culture.

Notes

- 1 In Canada, IBAs are not legally required unless stipulated in comprehensive land claims agreements (Kielland, 2015).
- 2 Calls for Extractive and Development Industries (NIMMIWG, 2019):
 - 13.1 We call upon all resource-extraction and development industries to consider the safety and security of Indigenous women, girls, and 2SLGBTQQIA people, as well as their equitable benefit from development, at all stages of project planning, assessment, implementation, management, and monitoring.
 - 13.2 We call upon all governments and bodies mandated to evaluate, approve, and/or monitor development projects to complete gender-based socio-economic impact assessments on all proposed projects as part of their decision making and ongoing monitoring of projects. Project proposals must include provisions and plans to mitigate risks and impacts identified in the impact assessments prior to being approved.
 - 13.3 We call upon all parties involved in the negotiations of IBAs related to resource-extraction and development projects to include provisions that address

the impacts of projects on the safety and security of Indigenous women, girls, and 2SLGBTQQIA people. Provisions must also be included to ensure that Indigenous women and 2SLGBTQQIA people equitably benefit from the projects.

- 13.4 We call upon the federal, provincial, and territorial governments to fund further inquiries and studies in order to better understand the relationship between resource extraction and other development projects and violence against Indigenous women, girls, and 2SLGBTQQIA. At a minimum, we support the call of Indigenous women and leaders for a public inquiry into the sexual violence and racism at hydroelectric projects in northern Manitoba.
 - 13.5 We call upon resource-extraction and development industries and all governments and service providers to anticipate and recognize increased demand on social infrastructure because of development projects and resource extraction, and for mitigation measures to be identified as part of the planning and approval process. Social infrastructure must be expanded, and service capacity built to meet the anticipated needs of the host communities in advance of the start of projects. This includes but is not limited to ensuring that policing, social services, and health services are adequately staffed and resourced (NIMMIWG, 2019, p. 596).
- 3 The resource curse thesis refers to the socio-economic phenomenon where regions rich in natural resources suffer from poor economic growth (Langton & Mazel, 2008). In the context of mines, this thesis is supported by a significant body of research that argues that the location of long-life mines in remote Indigenous communities has failed to generate socio-economic outcomes with many of these mines in the closure phase (Altman & Martin, 2009; Canel et al., 2010 as cited in Holcombe & Kemp, 2020).
 - 4 Mahy (2011) questions the general assumption that sex work in mining communities is 'bad' for women, suggesting that the economic opportunities that emerge may be more beneficial than the related social stigma is harmful.
 - 5 According to Gibson et al. (2017) 'Rigger Culture' refers to the place-based culture of hyper-masculinity, sexism, homophobia, lack of self-care, and disconnection from the local community common in remote industrial camps.
 - 6 FPIC is a specific, collective right held by Indigenous Peoples, embedded within the universal right to self-determination and recognized in the UNDRIP. It is an international human rights standard that affirms the right of Indigenous Peoples to give or withhold consent regarding a project that has the potential to affect their lands, territories, and resources. Consent is understood to be free, given voluntarily and without coercion, intimidation, or manipulation; is sought in advance of the commencement of a project; is generated ongoingly from informed right holders; and is collectively derived from rights holders through a community's customary decision-making process. As well, FPIC enables Indigenous Peoples to negotiate project design, implementation, monitoring, and evaluation (Food and Agriculture Organization of the United Nations, 2014).
 - 7 Section 35(4) of the Constitution ensures that Aboriginal and treaty rights are guaranteed equally as between male and female persons (Koutouki et al., 2018). Extending this recognition of equal rights to consultation processes, Dalseg et al. (2018) suggest that failure to include Indigenous women as full participants and community members on par with men in Crown consultation processes represents a lapse in fulfillment of the Crown's constitutionally enshrined duty to consult.
 - 8 Environmental assessments are a product of environmental assessment law as laid out in the Canadian Environmental Assessment Act 2012 (CEAA). The CEAA was repealed in 2019 and replaced with the Canadian Impact Assessment Act (CIAA) 2019 though, given the recentness of this change to IA, the majority of the literature published to date has focused on Indigenous involvement in EA processes.

- 9 EA focuses on the assessment of mineral deposits that have already completed advanced exploration work (Gibson & O'Faircheallaigh, 2015). As a result, Dalseg et al. (2018) describe EA as a pro-development and top-down approach to environmental planning since EA processes are embedded in a culture that promotes resource development and that implements resource development into communities regardless of a community's visions.
- 10 Indigenous men were also often treated as token hires and faced barriers to advancement but not at the same level of intensity as Indigenous women (Cox & Mills, 2015).
- 11 CSR and SLO are strongly tied in negotiations. Gibson and O'Faircheallaigh (2015) suggest that the ability of an Indigenous community to leverage CSR initiatives from mining companies depends on the capacity of the Indigenous group to inflict damage on the corporation by threatening the loss of its social license to operate. This capacity of Indigenous groups to threaten the reputation of corporations is regarded as a 'crucial lever' in negotiations.
- 12 Cameron and Levitan (2014) describe how IBAs secure community consent to extractive development as a way of removing barriers to capital accumulation and of avoiding confrontation between companies and Indigenous groups at minimal cost to the government and the developer. The securing of Indigenous consent can also act as a gag order through noncompliance provisions in IBAs that seek to remove barriers posed by Indigenous resistance to extractive projects. As well, IBAs may slow progress on comprehensive land claims (see Cameron & Levitan, 2014).
- 13 EAs can occur after IBAs negotiations, before IBA negotiations, and during IBA negotiations; each scenario has its benefits and drawbacks (see Gibson & O'Faircheallaigh, 2015, p. 46).
- 14 Voisey's Bay negotiation process was an exception; women played a significant role at the negotiation table despite the prevailing patriarchal culture (Keenen et al., 2014).
- 15 A woman was appointed as chief negotiators on behalf of the Labrador Inuit in the Voisey's Bay IBA (Graben et al., 2018). As well, a woman was made chief negotiator for the Lutsel K'e Dene community in multiple negotiations with diamond mine companies (O'Faircheallaigh, 2013).

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PART 2

Local Cases



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5 Corporate social responsibility, Indigenous Peoples and mining in Scandinavia

Carin Holroyd

Greenland's election in April 2021 turned on the question of uranium mining, igniting a political debate and bringing public attention to the issue. The governing party, the Social Democratic Siumut, favoured the development of a large mine in southern Greenland. Opposition parties on the left (the Inuit Ataqatigiit) and the centre-right (Naleraq) contested the plan, arguing that it lacked environmental and social protections. The coalition of opponents won the election narrowly—18 out of 31 seats—with the support of the Atassut party (Shi, 2021). The mining debate is connected to the gradual transition of authority from Denmark, which long controlled the island, to the Greenlandic people. Greenland assumed control of natural resources in 2010 and the now-deposed government was working with foreign developers to expand mining in the country. Such developments are seen as central to Greenlandic efforts to secure financial autonomy from Denmark while maintaining the high level of social services that residents have under Danish rule.

Greenland, settled by the Norse over 1,000 years ago, only became politically integrated with Denmark in 1953. Most of the population is Greenlandic Inuit and speak Greenlandic—only 12% of residents speak Danish as a first or sole language—and many feel uncomfortable with the Denmark-centric government. Greenland's struggle for home rule by Denmark remains underway; in 2008, Greenland gained responsibility for its natural resources. Greenland has significant undeveloped natural wealth including potentially viable but generally unproven deposits of coal, silver, nickel, cobalt, titanium, gold, precious gems, copper, lead, graphite, marble, and rare earth minerals. These will become more accessible or could become accessible, as global warming melts the island's ice-sheet (Greenland Institute of Natural Resources, 2022). Although there are only two active mines in Greenland at the moment: the tiny Aappaluttoq ruby and pink sapphire mine approximately 150 km south of Nuuk (Fouche, 2016) and an exploratory mine, also near Nuuk, that is extracting anorthosite, which is used in paints, fibreglass, and as a substitute for bauxite in the production of aluminium. A substantial number of companies have exploration permits (Ewing, 2021). Greenland is at the early stages of addressing the prospect of large-scale mining.

The 2021 election focused on the Kuannersuit/Kvanefjord uranium project which promised both much needed jobs and sizeable government revenues. Importantly, the controversy focused specifically on uranium mining rather than mining as a field of economic activity generally. As a member of the new governing coalition, Aaja Chemniz Larsen, said,

My party sees natural resources as an important part of securing broader economic development for Greenland, because today we are totally dependent on fisheries. This makes us far too vulnerable if the fish disappears. But you must take nature and human and animal health into consideration when you explore natural resources, and that is why we say no to a uranium mine which pretty much would be in people's back garden.

(Larsen as quoted in Preisler, 2021)

While many international observers viewed the Greenland controversy as being a classic anti-development fight, the reality is much different. The Greenlandic people, much like Indigenous communities around the Circumpolar world, wrestle with the need to secure financial autonomy and a greater measure of political autonomy. The main alternative at hand—a continued reliance on government transfer payments and state welfare—is clearly judged unacceptable.

In the present economic environment, natural resource development is the primary option for Indigenous groups wishing to break away from a pattern of welfare dependency and/or socio-economic marginalization. But with a centuries-long commitment to the stewardship of the land, the communities approach mining with caution. As the Greenland example illustrates, Indigenous Peoples are interested in new mines, but not any mine under any circumstances. The proposed Kuannersuit/Kvanefjord uranium mine, in the opinion of many Greenlandic electors, crossed the line of acceptability but did not signal a rejection of mining in general.

The company backing the uranium mine was not an old-style mining company, bursting onto the scene without recognizing long-term obligations to the people and the nation. The company worked closely with government and local residents, followed regulations and assessment procedures, and recognized and responded to the interventions of environmentalists. The firm, like mining companies in Scandinavia generally, understood that the Nordic population is sensitive to environmental impacts and ecology-based protests and the need to respond to local needs and interests.

Understanding why Greenlanders voted narrowly against the proposed uranium mine offers lessons for international resource companies especially that, regardless of where they are operating, they are now expected to accommodate and consult with Indigenous Peoples before extracting resources from their territories. It shows that even extensive and substantial arrangements with local populations are no assurance that the broader project will find social and political acceptance. In the intense political environment of the 2020s, close adherence to current standards of corporate social responsibility (CSR) does not protect a company or a

specific project from public protest or political interference. To put it simply, CSR is a requirement for successful mineral development in Scandinavia but provides no assurance of public acceptance.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the concept of free, prior and informed consent (FPIC) outlined in UNDRIP obliges companies wanting to embark on a project within the traditional territories of Indigenous Peoples to consult those peoples first and receive their consent. This expectation has merged with the growth of CSR which refers to the voluntary actions, those that go beyond legal obligations, to improve the economic, social and environmental conditions of the communities in which mining companies operate. Nordic-based firms have embraced CSR in a major way, establishing patterns of constructive and forward-looking relations with communities and affected populations.

This chapter aims to explore the relatively recent changes in the relationship between mining companies and Indigenous Peoples in Scandinavia, particularly Greenland, Norway, and Sweden over the past decades, and how these changes tie into CSR and the international change in expectations around the need for consultation with Indigenous Peoples on whose land development is proposed. The chapter discusses how contemporary mining activities collide with, or are accommodated to, Indigenous land use, rights, and socio-economic priorities in Scandinavia.

The Scandinavian countries are well-known to be leaders in CSR and sustainability. The authors of a 2014 study of CSR and Sustainability in Scandinavia summed up their conclusions by writing that “by pretty much any way one measures it, Scandinavian countries and Scandinavian companies lead the world in strong CSR and sustainability performances” (Strand et al., 2015, p. 13). Nonetheless, despite Scandinavia’s reputation as an international leader in CSR, the recent resurgence in mining activity, after some decades of inactivity, has meant that resource development is only beginning to take into account the needs, rights and aspirations of Indigenous Peoples of the region, the Sámi.

Sápmi, the Sámi people’s name for their traditional homeland, stretches across northern Fennoscandia including Norway, Sweden, Finland, and north-western Russia. Other Indigenous Peoples, the Nenets and the Komi, live on the Russian side of the region. Of the estimated 90,000 to 100,000 Sámi, approximately 2,000 live in Russia, 8,000 in Finland, 20,000 to 40,000 in Sweden and 50,000 to 65,000 in Norway (many in southern cities). The Sámi have been reindeer herders, hunters, gatherers, and fishers for generations but, like Indigenous Peoples in many parts of the world, have been moving into urban settings (IWGIA, 2022).

As the Scandinavian nations, particularly Norway, Sweden, and Denmark (Greenland), accelerate exploration and development, this raises important questions about the role of Indigenous Peoples in the mining industry. Indigenous resistance, most recently in Greenland, demonstrates the opportunity to accommodate Indigenous aspirations, apply modern CSR processes, fulfil obligations under UNDRIP, and demonstrate the financial reality that mines, properly developed, could hold a key to economic renewal and social stability. Debates about

Indigenous Peoples and mining have been most pronounced in Norway and Sweden where strong governments, motivated by social welfare concerns and, increasingly environmental considerations, are working to find a balance between development priorities and Indigenous rights.

Mining in Scandinavia

The current relationships between Indigenous Peoples, mining companies, and governments in Norway and Sweden are evolving during the current renewal in regional mining. Although home to some of the world's oldest and longest operating commercial mines, mining was comparatively inactive in Scandinavia over the last several decades. Mining is now slowly re-emerging in the region as the countries seek economic development opportunities in northern and remote regions and as companies attempt to meet expanding global demand for minerals. The valuable metals and minerals contained in Scandinavia are of considerable economic importance. The region is one of the largest and most active mining areas in Europe and has historically attracted investment to mine its rich deposits of coal, iron, silver, lead, zinc, nickel, and copper. More recently, northern Scandinavia has seen interest in mining for gold, diamonds, and uranium. Large deposits of rare earth minerals have also been found in Greenland, Norway, and Finland (Nathanielsen, 2022; Turner, 2015).

In 2022, there are significant active mining operations throughout Scandinavia. (See Appendix A for a description of Scandinavian mines with former, current, or potential impact upon Indigenous Peoples). In addition to the mines described in the appendix, there are mining properties of indeterminate status in Scandinavia, including Ahmavaara (Finland, gold, platinum, palladium, copper, nickel), Konttijärvi (Finland, platinum, copper, and nickel), Portimo (Finland, gold, palladium, platinum), Koivu (Finland, titanium), Selvåg (Norway, titanium, vanadium, magnetite-ilmenite) and Storgangen (Norway, titanium). The Scandinavian mining industry is a standard mix of legacy mines, several of them of international significance, a large number of small and short-lived properties, and numerous deposits searching for markets, investment and prices high enough to run profitably.

In contrast to other western nations, including Canada, the USA and Australia, Norway and Sweden have not allocated substantial land holdings to Indigenous Peoples although they have respected traditional Indigenous land and resource use and are now working to recognize Indigenous priorities and aspirations within national resource development plans. At the same time, the core activities of the Sámi peoples in the northern parts of the two countries, particularly the still-vital reindeer herding operations, routinely come in conflict with plans to develop mines and mine-related infrastructure. As mining is a trans-national industry, with many international firms actively engaged in Scandinavian mining activities, foreign companies bring a complex set of experiences, preferred practices, and relationships with governments and Indigenous communities to bear on northern Scandinavian operations. Most of these companies work with multiple

Indigenous communities, have developed CSR policies in different national and regional contexts, and generally understand that resource projects require a substantial level of regional acceptance in order to address government regulations and potential environmental protests. Many American, Canadian and Australia mining companies operate in Scandinavia; they bring with them their recent embrace of CSR and the obligation to work with Indigenous Peoples when undertaking resource development.

Mining in Norway: Corporate Social Responsibility and Cooperation with the Sámi

Ihlen and von Weltzien Hoivik (2015) in their study of the roots of CSR in Norway argue that although the first government white paper on CSR was not published until 2009, “a basic tenet of CSR, an orientation toward the concerns of stakeholders, has a long history in Norwegian business” (p. 109). The authors argue that the preponderance of small and medium sized companies in the country and the small size of the population and relative wealth of Norwegians led to the development of a “rather egalitarian society that later would influence the understanding and practice of CSR” (Ihlen & von Weltzien Hoivik, 2015, p. 110). Many businesses are deeply rooted in their towns or communities and involve their stakeholders through dialogue and negotiations without necessarily referring to these discussions as CSR (Ihlen & von Weltzien Hoivik, 2015, p. 117). As the role of the state is more dominant in Norway than in more free market economies like the United States, “the US positions the government outside the CSR agenda, the CSR agenda in Norway has largely been driven by the government” (Ihlen & von Weltzien Hoivik, 2015, p. 117). While that may be the case, governments are reluctant to force companies to embrace CSR. Challenges remain around the mining industry in northern Norway centred on environmental issues and their impact on the Sámi people, a significant number of whom continue to follow traditional subsistence-based lifestyles of fishing, reindeer herding, and hunting.

The Sámi are slowly gaining recognition of their Indigenous rights and the protection of their traditional economic activities. Although the reindeer herding industry has declined in recent decades, it remains a protected Sámi activity under *The Reindeer Act* (2007). Sámi Fjord fishing, in contrast, has no specific legal protection of Indigenous rights (Skogvang, 2013). While Norwegians and the national government view traditional Indigenous industries as legitimate, the mining industry is viewed as more economically important (Skogvang, 2013). Reindeer herding and fishing can be negatively affected by extractive industries, but the latter produce more employment and higher economic returns and government revenue than Sámi harvesting (Skogvang, 2013).

The Norwegian government has taken steps to recognize Sámi rights and aspirations. *The Sámi Act* (1987) aspired to “enable the Sámi people in Norway to safeguard and develop their language, culture and way of life” (Government of Norway, 1987, Section 1-1). The *Planning and Building Act* (2008) (PBA) also requires that Sámi rights be safeguarded. The PBA established guidelines

governing municipal land use across Norway and states that the Act will “protect the natural basis for Sámi culture, economic activity and social life” (Government of Norway, 2008, Section 3-1). Municipalities are required to assess the impact of any proposed land use or change that influences Sámi interests (Nygaard, 2016). Another provision states that,

Affected central government and regional bodies may make objections to proposals regarding the land-use element of the municipal master plan and the zoning plan in issues that are of national or significant regional importance, or which for other reasons are of significant importance to the sphere of responsibility of the body in question. The Sámi Parliament may make objections to such plans in respect of issues that are of significant importance to Sámi culture or the conduct of commercial activities.

(Section 5-4; Government of Norway, 2008)

To this end, the Sámi Parliament has the right to appeal decisions seen as detrimental to their rights and interests. Despite this recognition of Sámi interests, municipalities have the final say when it comes to extractive development projects (Kuokkanen, 2019a). The Sámi people have the right to be consulted regarding mining projects that may impact them but do not have the authority or legal ability to stop mining projects in their territory (Kuokkanen, 2019a).

Sámi interests are also partially protected in the core mining legislation, *The Minerals Act* (2009), which governs mining across Norway. *The Minerals Act* Section 2 stipulates that “the foundation of Sami culture, commercial activity and social life” is one of the interests that the Act safeguards while overseeing the administration and use of mineral resources (Government of Norway, 2009). Section 17 of the Act pertaining to applications for exploration in Finnmark (the northernmost country of Norway), states that,

An exploring party shall take reasonable steps to obtain information about directly affected Sami interests in the area that is to be explored. A special permit may be refused if granting the application would be contrary to Sami interests. In the assessment, special consideration shall be given to the interests of Sami culture, reindeer management, commercial activity, and social life. If the application is granted, conditions may be imposed to safeguard these interests.

(Government of Norway, 2009)

However, although the Sami Parliament was consulted about the Minerals Act, the fact that the Act does not contain a clause on benefit sharing was one of the reasons the Sami Parliament did not approve the Act (Wilson, 2019, p. 13).

The Finnmark Act (2005) aspired to fulfil obligations to the Sámi people pursuant to Article 14 of the ILO-169, which is known as the Indigenous and Tribal Peoples Convention (Indigenous and Tribal Peoples, 1989) and which has long been recognized by Norway (Nygaard, 2016). The Act promotes sustainable

development while subsequently safeguarding Sámi culture including reindeer herding (Government of Norway, 2005). The law (Section 5) specifically recognizes that “through prolonged use of land and water areas”, the Sámi people secured both collective and individual rights to land in Finnmark (Government of Norway, 2005).

In practical terms, the *Finnmark Act* transferred 95% of Finnmark to the regional authorities. The Finnmark Estate which manages the lands is operated by a Board selected by the County Council and Sámi Parliament (Nygaard, 2016). The Act, which was ratified by the Sámi Parliament, outlines the requirement that the assessment of proposed land use must include the impact on Sámi life. The Finnmark Estate collects landowner fees from mining companies that may be used to benefit Indigenous Peoples but is not under their direct control (Nygaard, 2016). Notably, the regulations do not provide for Sámi ownership over the land to protect the people and their interests (Gjertsen et al., 2017). The Sámi have a right to use the land, but they do not own it. Further, and limiting Sámi authority, the denial of an application by the Finnmark Estate or the Sámi Parliament can result in appeals to the relevant Ministry and, for the final decision, the national cabinet (Gjertsen et al., 2017).

The Sámi have used the courts to protect their interests, including in their opposition to proposed mining projects in the Finnmark region: Nussir in the Kvalsund municipality and Arctic Gold in Kautokeino (Koivurova et al., 2015). Increasingly, the Sámi people press for recognition of Indigenous rights by appealing to human rights regulations and international laws ratified by Norway. This has allowed them to impact government decision making at the state level (Kuokkanen, 2019b). As Indigenous Peoples have discovered in many countries, the threat of legal action is a significant part of the political decision-making process, often encouraging governments to consider, and reconsider policies and investments that would not otherwise be on the table.

Along with lobbying the Norwegian government for support, the Sámi have also focused on the corporate sector. The Sámi Parliament adopted their own guidelines to govern mining on Sámi territory, hoping to reshape relations between mining companies and the Sámi Parliament. The Sámi discovered that the mining industry was more receptive than the Government of Norway, reflecting the international nature and experience of the mining industry itself. Engagement with Indigenous communities is increasingly the global norm, particular where Indigenous expectations are matched by government participation. The Sámi Parliament signed bilateral agreements with several mining companies to establish procedures to govern future negotiations (Kuokkanen, 2019b).

The Sámi, capitalizing on global and media support for Indigenous Peoples, environmental concern about mining and the firms’ public commitments to Corporate Social Responsibility, have focused on encouraging companies to act carefully and respectfully, to promote CSR and to abide by requirements for a social license to operate (Nygaard, 2016). CSR challenges corporate entities to promote the economic, social, and environmental well-being of the communities proximate to their properties (Nygaard, 2016). The idea of needing a “social

license to operate (SLO)” which is an increasingly common North American expectation—albeit a concept that is often difficult to operationalize—encourages communal acceptance of corporate activity in a particular region (Nygaard, 2016). Under this approach, mining companies routinely seek social acceptance in the early stages of development, building and strengthening the relationship between indigenous stakeholders and the mining company (Nygaard, 2016). But this is a fairly new expectation. As recently as the 1990s, several international mining companies (Rio Tinto Zink Corporation PLC, Monopos Ltd, Mamikaiyos OY and Ashton Mining Ltd.) secured permits to mine in local reindeer herding regions without consulting with the Sámi (Skogvang, 2013). Conflicts between reindeer herders and miners resulted (Eftestøl et al., 2019). The Sámi hope that the introduction of SLO approaches would prevent work on mines from proceeding without Indigenous engagement.

Under SLO approaches, Norwegian communities likely to be affected by mining activity would be consulted before mineral extraction starts, with the goal that companies adhere to the cultural, social, and economic values of the region (Espiritu, 2015). The adoption in March 2020 of the Mining Association of Canada’s Today’s Sustainable Mining (TSM) initiative demonstrates the Norwegian Mining industry’s commitment to improving its social and environmental practises (“Norway Adopts...”, 2020). The programme, which is connected to the United Nations’ sustainability goals, has gained a measure of international acceptance (but little formal implementation, largely due to problems with definitions and the lack of clarity on whose approval is required) and has been credited with improving relationships between local communities and mining companies (“Norway Adopts...”, 2020). TSM promotes transparency, credibility, and good leadership and is designed to encourage mutually beneficial relationships in the industry.

One of the primary points of contention between mining companies and the Sámi relates to the herding of reindeer. Reindeer herding is a fundamental component of traditional Sámi culture, with 10% of the Sámi people engaged in the sector (Bjørklund, 2014; Koivurova et al., 2015). Reindeer pastures often overlap with preferred mineral extraction sites for mining companies. This makes things difficult for reindeer herding Sámi, as reindeer generally avoid areas marked by human activity and infrastructure (Eftestøl et al., 2019). Some Sámi people are nervous about mineral extraction when it is likely to compromise the quality of reindeer herding (Greaves, 2016). Research has demonstrated that reindeer reduce their use of habitats where mineral extraction is underway (Eftestøl et al., 2019). *The Act Relating to Reindeer Husbandry* (2007) encouraged economic, environmental, and culturally sustainable reindeer herding in a manner that respects Sámi cultural norms. The Act identifies the reindeer herding areas where grazing is lawfully permitted (“Act Relating to...”, 2007 ammended 2017). According to Section 4 of the Act, the Sámi maintain a legal right to continue reindeer herding in areas, including Finnmark, Troms, Norland, and Hedmark, where their ancestors have traditionally engaged in the activity (“Act Relating to...”, 2017). These Indigenous rights, albeit with limited formal definition in Norway,

are protected for members of Sámi families who have reindeer herding as their primary occupation or whose family members practice reindeer husbandry.

In summary, Norway has been slowly expanding its mining activities, in part to offset the anticipated decline in employment, commercial activity, and tax revenue from a sunsetting offshore oil and gas industry. At the same time, and more slowly than in countries operating in the British legal tradition, Norway has been moving cautiously to recognize Sámi rights as Indigenous Peoples. The Sámi have rights of consultation and have expanded their relationships with mining firms, but they do not have a veto, either official or effective, over mining operations. The core Sámi activities threatened by the expansion of mining relate to reindeer husbandry, a still vibrant but threatened part of Sámi life and economic engagement. In practical terms, the Sámi do not automatically oppose mining; like many Indigenous Peoples around the world, they seek jobs and economic opportunities for their communities, however, the Sámi Parliament has little power to stop projects they feel would be harmful, even in areas where traditional ways of life continue (“Act Relating to...”, 2017).

Mining in Sweden: Corporate Social Responsibility and the Sámi

CSR is well established in Sweden, with legal and political systems that have politically internalized what might be called CSR elsewhere. Sweden is viewed as an international front runner on CSR and ranked first on the Sustainable Competitiveness Index in 2021. In a chapter on CSR in the welfare state E. Knobbloch writes about Sweden that “Within the political discourse, the debate about CSR moves along a political left-right scale, where regulations on businesses, profits, ethical investments and the need for growth often are debated from an ideological basis” (Knobbloch, 2013, p. 161). There are also debates about the status of the Sámi. Although they were recognized as Indigenous Peoples of Sweden by the Swedish Parliament in 1977 and then as having a right to self-determination in 2006 and by Swedish constitutional law in 2011, the rights were not specified (Nilsson Dahlström et al., 2021). The lack of clarity around Sámi rights has been particularly problematic around resource development as Sweden’s primary industries—hydropower, forestry, and mining—are centred in Swedish Sápmi.

Unlike Norway, which still relies heavily on the oil and gas industry, Sweden’s continued economic prosperity rests significantly on the mining sector which accounts for 3% of Swedish GDP and 8% of exports (Naess-Schmidt et al., 2021). Sweden is eager to promote the nation as a location for mineral extraction and is known for the low fees associated with mineral extraction on Swedish land (Landén & Fotaki, 2018). Northern Sweden is host to almost all of Sweden’s ore production; 10 out of the 12 active mines in Sweden are in Norrland (Blåhed & San Sebastián, 2021) an area that includes the traditional territory of the Sámi peoples who continue to fish, farm, hunt and herd reindeer in this region. Any mines in Norrland are, therefore, located on traditional Sámi land and affect substantial reindeer

herding lands (Nilsson Dahlström et al., 2021). These mining projects proceeded with little consultation process with the Sámi people, despite Sweden's international pledges to improve Indigenous prosperity (Blåhed & San Sebastián, 2021).

Over the past two or three decades, inspired by the global Indigenous and environmental movements and particularly the 1992 Convention on Biological Diversity (CBD), the Sámi in Sweden have pushed forward the position that, as Indigenous Peoples and as holders of traditional environmental knowledge, they should have a role in environmental management and more control over issues that affect them (Nilsson Dahlström et al., 2021). The designation of Lapponia, a mountainous area in Lapland province of northern Sweden, as a UNESCO World Heritage Site in 1996 further mobilized this position as the local Sámi reindeer herders fought for their role as caretakers of the region and stood up to resource companies and the national government (Nilsson Dahlström et al., 2021). Improvements in Sámi rights and increased influence over developments on their territory remain much more conceptual than practical, although general Swedish laws and administration protect the Indigenous Peoples from serious dislocations and the impoverishment that often accompanied mining activity in the developing world.

There have been numerous Sámi protests against mineral extraction on traditional land and a variety of court cases. A major 2013 protest against the British firm Beowulf Mining, when it began exploring for iron ore in an area heavily used for reindeer herding attracted international attention. In 2014, the Sámi people demanded an amendment to *The Swedish Minerals Act* (1992) that would legislate respect for reindeer herding and Sámi rights (Nilsson Dahlström et al., 2021). They sought a legal veto over projects that affected Sámi or reindeer herding communities plus “a raised fee for the extraction of minerals in the form of royalties, which would benefit a new fund for Saami industries and Saami social development” (Nilsson Dahlström et al., 2021, p. 10). They prioritized the implementation of the UNDRIP and wanted future mining proposals to be evaluated by the standards of UNDRIP. In 2020, the Committee on the Elimination of Racial Discrimination (CERD), called upon the Swedish government to stop mining projects in Raavrhjohke/Rönnbäcken and to amend mining legislation to include consent and duty to consult requirements to better protect the Sámi people. These recommendations were not implemented but the local reaction did manage to keep the project “on hold” (Nilsson Dahlström et al., 2021).

The 2020 court case involving the Girjas reindeer herding community sheds light on the state's view of Sámi rights. While the Supreme Court granted the Sámi claims for concession rights over those of small game hunters and fishers within the Girjas reindeer herding community, the court granted these rights based on “immemorial rights” (rights that can be claimed by anyone who has been using a natural resource for a period of time beyond that of memory or formal record) and not on the rights of the Sámi as Indigenous Peoples, which is what the Sámi had argued. The court did state, however, that even though Sweden has not ratified the Indigenous and Treaty Peoples Convention ILO-169 (1989) that states in article 14.1 that “the rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognised”

(Indigenous and ..., 1989), this is part of international norms and is technically binding, but politically without much weight, for Sweden. Steps taken to date have not, in the minds of the Sámi, protected Sámi interests from the expansion of the mining economy. Studies have documented the fragmentation of pastures and reindeer avoidance of heavily trafficked areas, collectively resulting in a loss of more than half of the winter grazing grounds (Österlin & Raitio, 2020).

The situation in Sweden remains unchanged, with the Sámi continuing to defend reindeer herding rights and with the government continuing to encourage mineral extraction. As a 2021 assessment of the Sámi contest over mining activities argued:

Mining and the permitting process for mineral projects in Sweden has been criticised as inadequately safeguarding the rights of Indigenous reindeer herding Sámi, who hold usufruct rights to more than half the country's territory. There have been calls for Sweden to ratify the Indigenous and Tribal Peoples Convention (ILO 169) and to change its Mineral Law...[R]eindeer herding Sámi are, broadly, treated similar to landowners in the mineral projects permitting process. However, there is discrimination when it comes to being able to have a share in the benefits of a project: impacted reindeer herders have no such option whereas landowners do. Also, the permitting processes do not consider social and cultural impacts, nor are there obligations for the state to be sufficiently involved in consultation processes. Addressing the identified shortcomings would require only small changes to the Mineral Law and/or to its application and would be possible with only limited impacts on mining because the sector is not a significant user of land whilst it creates large economic values. However, extending those changes (to give parity between landowners and Sámi rights holders) in other important economic sectors which use more extensive land areas, would entail a considerable transfer of resources and associated power.

(Tarras-Wahlberg & Southalan, 2022, p. 239)

Most Sámi in northern Sweden are not engaged with reindeer herding, which means that the continued emphasis on herding-mining relations does not necessarily address the interests of the Sámi at large. With the broader Sámi interests in land and mineral wealth largely undefined and without legal or legislative backing, considerable work remains to determine the long-term role of the Sámi in the mining sector.

There have been numerous anti-mining protests in Sweden. These can involve significant risks to communities and individuals. Swedish activists

point to the difficulty of taking frontline positions in resistance movements in small places because, at a local level, they may become 'too visible' and vulnerable to violence because of their engagement. Openings of new mines are connected with threats of violence and violations to women's lives in various ways, particularly for those engaged in anti-mining activities.

(Landén & Fotaki, 2018, p. 29)

The assertion of Sámi land rights against mining companies, in turn, worried Sámi communities and activists (Ojala & Nordin, 2019).

The Government of Sweden does not appear to have plans to restrict its mining operations or to expand Sámi influence over the sector. Indeed, mining remains a key part of the country's economic and northern development plans (Blåhed & San Sebastián, 2021). Unlike Indigenous Peoples in many northern and remote regions, however, the health, wellness, and economic condition of the Sámi in northern Sweden continues to be strong, closer to national norms, with a few exceptions, than other Circumpolar Indigenous Peoples (Sjölander, 2011). The Swedish Sámi Parliament wants an improved consultation process and hopes that parties seeking permits for mineral exploration will be required to gain the consent of the Sámi people in reindeer herding/economic districts ("Minerals and Mines", 2016). The Sámi in Sweden seek confirmation of their rights outlined in the United Nations Declarations on the Rights of Indigenous Peoples, particularly those that support self-determination, land rights and cultural protection.

Conclusion

Northern Scandinavia is comprehensively engaged in the mining industry. While the Greenland government elected in 2021 has taken a strong stance against the proposed uranium mine, it is likely that when a new government eventually comes to power the mine could be considered again. The governments of Norway and Sweden support an expansion of mining activity while seeking, in different ways, to accommodate Sámi interests. In northern Scandinavia, as in many other jurisdictions, Indigenous Peoples are wary of enhanced extraction, their concerns informed by historical dislocations and environmental and social changes associated with previously unchecked development.

Equally important, Indigenous Peoples are not automatically opposed to mining activity, but seek the legal and political means to avoid major disruptions of traditional lifeways and harvesting activities, and the economic authority to ensure appropriate participation in the sector. It is equally clear that international forces, including international law and United Nations' policy, transnational mining companies, growing public demands for corporate social responsibilities and growing support for Indigenous renewal and environmental sustainability, are present in Indigenous and even national discussions across the Circumpolar world. It is also obvious that the fine words and general commitments of national governments and international organizations have only begun to influence policies and developments on the ground. What is clear from the experience in northern Scandinavia is that the future will look different from the present in terms of mining activity. Mining companies, working in a global environment of CSR and media oversight, are increasingly working with Indigenous communities in Scandinavia to avoid the historic injustices and dislocations associated with mineral development on traditional Indigenous territories.

Appendix A: Scandinavian Mines with Former, Current, or Potential Impact upon Indigenous Populations

Kiirunavaara (Sweden): Kiirunavaara is one of the largest and most modern underground mining operations in the world. To accommodate the expansion of this iron ore mine, the company is relocating the city of Kiruna several kilometres. Continued exploration by LKAB is taking place around Kiruna (LKAB, 2021b).

Leveäniemi (Sweden): Leveäniemi is an active open-pit mine that uses a bench-mining method to extract iron (LKAB, 2021a). When LKAB chose to reactivate the flooded Leveäniemi mine after nearly 30 years of inactivity, it drained 35 million cubic meters of water between 2012 and 2015 (Xylem, 2015).

Malmberget (Sweden): Malmberget is one of the largest iron ore mines in the world. Located approximately 75 kms from Kiruna, this underground mine extracts iron ore through large-scale sub-level caving (Mining Technology, 2021d). This mining method is associated with induced seismic activity that has impacted the residents of Malmberget (Wettainen & Martinsson, 2014). Malmberget is therefore being moved to allow for the expanded mining operations. This Completion for this relocation project is scheduled for 2032 by which time 3,200 people and 74,000 square meters of buildings will have been moved (Caverion Corporation, 2019).

Kaunisvaara (Sweden): The two open-pit sites, Sahavaara and Tapuli, are located 100 kms above the Arctic circle. In 2014, the mine and Northland Resources declared bankruptcy; Kaunis Iron took ownership of the mine in 2018 and restarted production. The mine processes 7,000 tons of iron ore concentrate per day and has targeted output of 2 million tons per year (ABB, 2020).

Aitik (Sweden): This copper mine is one of the largest open-pit operations in Europe, extracting ore at the rate of 1t per man hour (Mining Technology, 2021a). The mine owner, Boliden AB, claims that Aitik is one of the most gender-neutral mine operations in the world as well as the most efficient copper mine. The mine's lifespan extends to 2040 (Boliden, 2021a).

Kristineberg (Sweden): In 2021, Kristineberg mine announced plans to expand operations towards the Rävliiden deposit. Expansion and upgrades will increase output and extend the life of the mine (Mining Technology, 2021b). To enhance the success of their permit application, Boliden promises investments in infrastructure and water treatment (Moore, 2021).

Björkdalsgruvan (Sweden): The open-pit and underground gold mine has changed hands several times since gold was discovered in 1983. The current owner is Mandalay Resources, which acquired the mine from Elgin Mining in 2014. In 2019, Mandalay Resources delayed further open-pit mining until after their stockpile of low-grade ore is used up. Open-pit operations are scheduled to restart in 2023; underground operations are expected to end in 2026 (Pressacco et al., 2020).

Renström (Sweden): Located in the most intensely mineralised parts of the Skellefte district, Renström is part of a complex of Boliden owned mines alongside Kristineberg, Kankberg, and Maurliiden. This underground mine is

up to 1,500 meters deep, making it the deepest mine in Sweden. The mine went into production in 1948 and produces zinc, copper, lead, gold, and silver (Collin, 2018).

Kankberg (Sweden): Gold deposits were discovered in 1995; production began in 2012. The land and deposit are 100% owned by Boliden. This mine is completely automated and plans to operate without onsite mining personnel (Mining Technology, 2017).

Garpenberg (Sweden): Boliden states that this is the world's most productive and automated underground zinc mine (Boliden, 2021b).

Lovisagruvan (Sweden): This underground mine has large deposits of lead and zinc with some silver. Mine revenues have been decreasing. Apparently, only a single boatload of ore was shipped during the third quarter of 2021, down 2/3rds from the previous year (News Agency Direkt, 2021), due largely to high rates of pandemic-related absenteeism.

Zinkgruvan (Sweden): This underground mine benefits from an efficient transportation network by which products are shipped via water to markets (Daffern et al., 2017). The mine has a long history of foreign ownership: Vielle Montagne of Belgium (1857–1990), North Limited (1995–2000), Rio Tinto (2000–2004), Lundin Mining (2004–present) (Daffern et al., 2017).

Tellnes (Norway): This open pit mine is the largest titanium mine in Europe and one of the largest in the world (Mindat, 2021). Production data post-1999 is publicly unavailable but 580 thousand tons of ilmenite concentrate was produced in that year (Mindat, 2021).

Ødegårdite (Norway): The apatite extracted from this mine is used to create “superphosphate” for use in fertilizer. Samples from the mine's tailings contain titanium and uranium.

Sydvaranger (Norway): In 2015, the company went bankrupt due to low iron ore prices. Sydvaranger refinanced, obtained a new permit and planned to restart operations in 2020. Sydvaranger never managed to restart operations and sold to Tacora Resources in 2019 (Nilsen, 2021a).

Kittilä Suurikuusikko (Finland): This gold deposit was discovered in 1989, but it took 14 years to secure a mining licence and permit. Open pit mining commenced in 2012; proceeds from these pits funded underground operations that began in 2006. The Kittilä mine is the largest primary gold producer in Europe and is expected to operate until 2034 (Agnico Eagle, 2021).

Pyhäsalmi (Finland): This mine is owned by the Canadian firm First Quantum Minerals. It planned to close in 2019, but high demand for pyrite allowed the mine to remain open for an additional 14 months. Mining was to continue until spring of 2021 with the above ground refinery to continue until 2025. The University of Oulu and the town of Pyhajarvi plan to convert the mine into an underground research facility and business centre (placeandsee.com, n.d.).

Suhanko (Finland): This newly developed palladium deposit is the largest in Europe. The mine is expected to employ 200 people, remain in operation for 20 years and generate 1,000 local jobs (Wilson Centre, 2021).

Kolari (Finland): With one of the largest iron reserves in Finland and the world, the restart of the mine is expected to create 500 jobs during construction and 300 jobs during production. This mine is highly controversial as it is situated near a large ski resort. The mine will bring €1.5 billion in tax revenue, of which €72 million would go to Kolari and €125 million to the other municipalities in the region. The tourism industry opposes the development of the mine (Nilsen, 2021b).

Talvivaara/Sotkamo mine (Finland): State-owned Terrafame bought the Talvivaara Mining Company in 2015; two years later, the mine was sold to Trafigura. Cameco signed a deal in 2011 to extract uranium from waste products. This large mine is the site of several leaks of toxic contaminated tailings that resulted in criminal charges against the mine. The government of Finland purchased the mine and wrote-off almost all of Talvivaara's 479 million Euro debt (YLE News, 2015). Talvivaara Mining Company is now known as Ahtium. A leaching pond containing the uranium and toxic substances leaked. It is estimated that environmental mitigation will cost 100 million euros. Even before the leaks occurred, the mine was struggling after adopting the bioleaching method commonly used to mine low-grade ores (International Mining, 2018).

Kevitsa (Finland): This nickel deposit was first discovered in 1987 and represented one of the largest mineral discoveries in Finland (Boliden, 2021c). The open pit mine has been part of the Boliden group since 2016.

Sokli (Finland): Yara, the world's largest fertilizer company, acquired the mine in 2007 but halted production after determining they were unable to make a profit. In December 2020, Finland Minerals Groups signed a deal with Yara Suomi Oy for the rights to the Sokli mining project in Savukoski in Northern Finland (ePressi, 2020).

Mustavaara (Finland): Between 1976 and 1985, this property produced 10% of the world's vanadium supply (Strategic Resources, 2021). Strategic Resources acquired all intellectual property, core samples, and storage facilities from Ferrovan.

Kemi (Finland): This is the largest underground mine in Finland. Operations moved underground in 2003 and the original open pit was exhausted in 2005 (Outokumpu, 2021). The operator applied for an environmental assessment of their expansion plans in 2020 (E&MJ, 2020). This will include increasing the volume of ore production, using new mining and processing methods, building a new tailings pond, and mining tailings.

Maarmorilik/Black Angel Mine (Greenland): Black Angel Mining went bankrupt in 2009 along with its principal properties Black Angel Mine (zinc, lead, and silver) and Nalunaq gold mine. Plans to reopen the mine failed (Taagholt & Brooks, 2016).

Isua (Greenland): This is believed to be the largest iron deposit in the world. General Nice Group, a Chinese firm, secured a permit to mine in Greenland, but delayed extraction due to the low price of iron (Fouche, 2016). There has been intense opposition to the Isua mine because of a lack of public consultation efforts and the potential impact on local hunting and fishing (EJAtlas, 2019).

Kvanefjeld (Greenland): This is one of the world's largest deposits of undeveloped uranium and rare earth minerals (Mining Technology, 2021c). There was a ban on uranium mining from 1988 until 2013. If extraction begins, at Kvanefjeld, it would be the most significant western producer of rare earths, uranium, zinc and fluor spar (Jamasmie, 2017). More than \$100 million has been invested in the project thus far, but the Government of Greenland legislated against further uranium extraction or any extraction that would disturb uranium deposits in 2021 (Mining Technology, 2021d). Greenland has an independent Parliament, but there appears to be political pressure and motivation within Denmark to encourage development of Kvanefjeld. Anticipated revenues from the mine would offset the \$500 million annual transfer payment to Greenland from Denmark (Jamasmie, 2017).

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6 After the mine has left

The case of Maricalum Mining Corp.

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Introduction

Legacy mines¹ are “lands which have been mined and are now being used for another purpose, or are orphaned, abandoned or derelict and in need of remedial work” (Worrall et al., 2009, p. 2). Mine legacies have been associated with a host of issues and challenges as companies and governments fail to fulfill their post-closure obligations (Bennett, 2016; Mhlongo & Amponsah-Dacosta, 2016; Unger, 2017). In particular, regulatory structures often fail to protect the local environment and communities who depend upon intact ecosystems. The reputation and sustainability of the mining sector is also affected when long-term detrimental environmental impacts emerge because they were not appropriately addressed during the life of the mine (Bennett, 2016). Hence, it is important that policies and associated programs and regulations are established early on and set strict parameters that can ensure rehabilitation and remediation success as a means of avoiding detrimental legacies from extractive industries.

In the Philippines, a ground-breaking mining law, the *Philippine Mining Act*, adopted in 1995, included a provision aimed at addressing issues surrounding legacy mines. The Act requires the mandatory preparation and implementation of a final Mine Rehabilitation/Decommissioning Plan at least five years prior to the end of the mining activities. The Act states that this plan should be accomplished in collaboration with the concerned communities and submitted for approval to the Mines and Geosciences Bureau (MGB) and concerned local government unit (LGU). More recently, former President Benigno “Noynoy” Aquino III (2010–2016) issued Executive Order (EO) No. 79, s. 2012, which contained a provision on how legacy mines are to be managed upon company closure, stating that the government retains all powers over remaining mineral resources after the expiration of the company’s contract. Despite the EO, this has not been the case as companies continue to retain control of the land around the mining concession and consider the mining site to be private property, often overseen by their own security personnel.

Prior to these legislative actions, Philippine statutes on the local effects of mining were more retrospective/compensatory in nature than prospective/preventative. Presidential Decree (PD) No. 1251, enacted on November 28, 1977

(Presidential Decree No. 1251, 1977), ordered all operational mining companies to contribute twice a year to a “Mine Wastes and Tailings Fee” that

shall accrue to a reserve fund to be used exclusively for payment of damages on lands, agricultural crops and forest products, marine life and aquatic resources, the destruction of infrastructures, and the revegetation and rehabilitation of silted farm lands and other areas devoted to agriculture and fishing caused by pollution due to the operation of mining companies.

(Section 2)

Another decree, PD No. 1198, enacted on September 19, 1977 (Presidential Decree No. 1198, 1977), specified that those engaged in mining, along with other exploratory/exploitative/construction activities, shall, “to the fullest extent possible, restore, rehabilitate, and return the lands, rivers, and natural environment [subject of their activities] or affected thereby to their original conditions” (Section 1).

In an analysis of Canadian and Philippine legacy mines, Yap (2015) claimed that the negative impacts of legacy mines “result from failure to control and manage environmental impacts” and that these impacts “are cumulative effects of the mine during its active life” (p. 24). Shortfalls that are the most common include weak commitments from governments and organizations. In such instances, no organization is elected to lead the supervision of mining projects and ensure they have a closure plan. There is also a lack of mechanisms put in place by companies and governments alike due to the belief or claim that the other entity has established policies before, during, and after the extractive activities take place. Unger (2017) observed that mining companies often claim that they were not aware of the requirement to have a closure plan as engineers are responsible to oversee the development and operations of a mine and not the closure of it. These weak commitments are compounded by limited stakeholder engagement with local communities regarding the impacts of projects and mine closure.

Bennett (2016) suggested that post-shutdown issues should be addressed while the mines are still operating. This is where a corporate social policy (CSR)—a company’s commitment to contribute towards the wellbeing of wider society (Fordham et al., 2017, p. 366) or a “popular measure of good corporate citizenship” (Lorenzo-Molo, 2009, p. 149)—is needed to ensure a lasting and positive mining legacy for local communities (Fordham et al., 2017). When implementing CSR, human agency is an important factor in supporting successful community programs (Giddens, 1984). CSR acts as a guarantee for a better legacy for mining companies’ post-closure, provided that the goals are for the benefit of the local community members.

In this chapter, to analyze the issue of the long-term impact of CSR programs in communities, we use the Sustainability Criteria and Indicators framework for legacy mine land developed by Worrall et al. (2009). This framework served as our analytical lens to analyze the case study of Marinduque Mining and Industrial

Corp. (MMIC) / Maricalum Mining Corp. (MMC). Our goal is to examine if the programs implemented by the mining company were sustainable as well as assess the overall impact that the mine left for the community. Specifically, we assess the benefits and drawbacks of the MMIC/MMC following its closure in 2001. By doing so, we will reveal that the legacy of the mining companies on peoples' livelihoods is dependent of not only the actions of key actors, the government, and the mining corporation, but also the community.

The Maricalum Mining Corp. in Sipalay, Negros Island

The legacy mine case study chosen for this chapter is found in Negros Island located in the Visayas cluster, the central island group of the Philippines (See Figure 6.1). The island is considered as one of the earliest political regions in the Philippines with an established provincial government as early as the 1890s.² Negros has also hosted a number of mining companies through the years, with MMC and its immediate predecessor, MMIC, being among the most prominent mining companies in the history of the province both in terms of the income generation and controversies that it created.

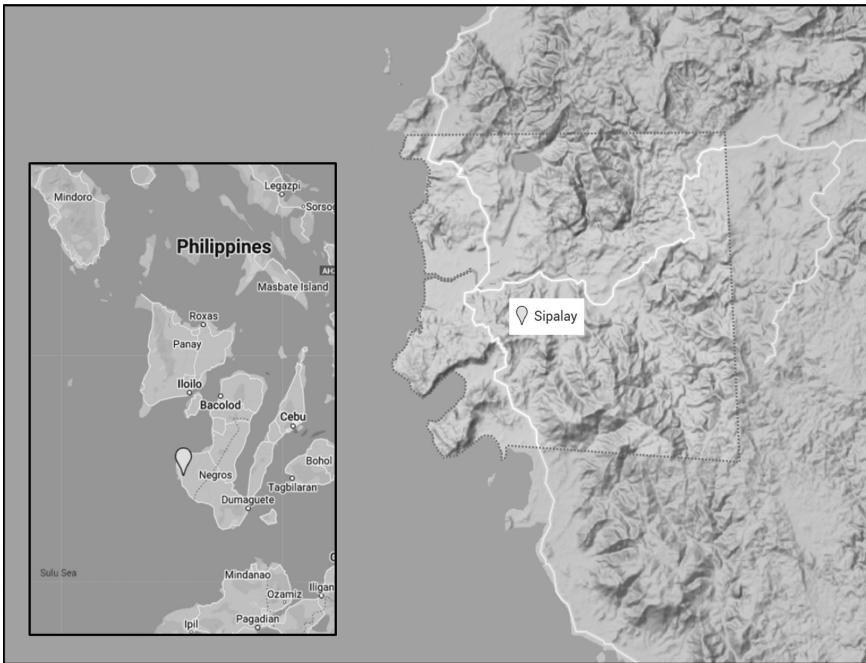


Figure 6.1 Location of Sivalay, the host municipality of the Maricalum Mining Corporation, Philippines. Source: Google Maps, 2022.

Initially named Marinduque Iron Mines Agent Inc. (MIMAI), MMIC was established in 1949 by Don Jesus S. Cabarrus Sr., who was involved in mining in the Philippines since before World War II. Jesus and many of his other brothers were prominent figures in the mining business after the war (Yench, 1960), with Jesus leading groups such as the Mining Association of the Philippines. The company first shipped iron ores to Japan from the province of Marinduque, Philippines (The Christian Science Monitor, 1980). In 1948, the company expanded its mining activities in Sipalay, Negros. However, it was only in 1953, that a Japanese firm, the Mitsui Mining and Smelting Corporation, identified the Sipalay mine as a “huge ‘Porphyry Copper’ type deposit leading to the significant expansion and infrastructure developments” (Mukai & Matsunaga, 1967, p. 625). After years of mineral prospection, investigations, verifications, application, and negotiations with the country’s mining bureau, Cabarrus’ company finally “won the rights to explore, develop and operate 250 mineral claims in Binulig, Cansibit and Baclao” (copper deposits in Sipalay) in 1955 (Ombion & Cadagat, 2002, para. 15).

In 1957, MIMAI made its first shipment of ore (Negros Occidental Historical Commission, 1984; Ombion & Cadagat, 2002; United States, 1959). The company later renamed Marinduque Mining and Industrial Corp., pronounced by locals as “mi-mick”,³ operated on 2,673 hectares of mineral land.⁴ Its operation started with approximately 1,000 workers during the 1950s and reaching a summit of around 7,000 workers during the 1980s (Ombion & Cadagat, 2002). MMIC closed in late 1983 due to environmental and production issues. By then, the company was unable to pay its enormous debts to the government, resulting in the joint foreclosure of MMIC by the state-owned Development Bank of the Philippines (DBP) and the Philippine National Bank (PNB).⁵ Cabarrus ceased to have any participation in the Sipalay mines after MMIC was foreclosed. In 1985, the mine resumed operations, this time operated by the newly organized Maricalum Mining Corporation (MMC).

This specific mining (case study) was selected according to the following criteria: (1) peripheral character in relation to the heart of political and economic power—Manila and the island of Luzon; (2) the existence of large expanses of arable land suitable for the establishment of extractive industries; and (3) the presence of tension and open (and sometimes even armed) conflict over access to and use of land. Data collection included 20 semi-structured interviews with key actors from the municipality during field visits from 2017 to 2019. Informal interviews and on-site participant observation were also included in the data collection process to derive more nuanced and rich information. Ubaldo spent six weeks in the case study area in 2017, and Caouette and Ubaldo went back twice for two weeks each time in 2018 and 2019. The respondents, all working in or residents of Sipalay, included a staff member of a non-government organization, a member of a people’s organization, a local politician, municipal officials, farmers, former mine workers, local government officials, and provincial historian. All participants were interviewed face-to-face and recorded when possible. Interviews were conducted in Hiligaynon, the local language in the Western Visayas region, and

the transcriptions were translated into English. The findings from the interviews and participant observations were validated by triangulating with documents and archives to provide a deeper context to the respondents' narratives. Documents accessed included the municipal land use plans, civil society organizations and government reports, investigative reports, news articles, local historical documents, and archival documents.

Analytical Framework

Mining and sustainable development have been intertwined in the literature for a while now. Corder (2017) described the concept of sustainability in mining as responsible development and growth that impacts both the mining industry and the local communities affected by mining. In his chapter, he stressed the importance of an inclusive approach and doing away with the misconception of sustainable development as financial payments for institutions and communities.

In our case study, we align ourselves with this approach as a core principle for our analytical framework. This allowed us to identify the issues to highlight and then to apply Worrall et al.'s (2009) Principles, Criteria and Indicators (PC&I) framework to measure the sustainability success of legacy mines. Worrall et al. (2009) used the Swanbank case study in Queensland, Australia to test the idea of the PC&I framework. The framework consists of principles, criteria, and indicators ordered hierarchically. It identifies "three pillars"⁶ of sustainability (environmental, socio-political and economic) as principles considered as the highest category under which the criteria and indicators are organized.

The principles referred in this framework are general conditions for achieving sustainability. These principles are the umbrella categories that differentiate the impacts of the mine in various facets of society. Under each principle are sets of criteria which are the goals that the society seeks to accomplish. Each criterion is further defined by indicators. Indicators are the information that help assess if a specific criterion is achieved or not. Some of the indicators can be quantified while others are qualitative. Examples of the quantitative indicators are the number of rehabilitated sites and the total area rehabilitated.⁷

All collected data, including those from observations, documents, and interviews were coded using the PC&I framework to examine and assess the level of sustainability surrounding MMIC/MMC programs⁸ and legacy activities (See Table 6.1). As suggested by Worrall et al. (2009), the indicators should be locally relevant and adaptive in nature. As a result, we only applied the framework criteria that were obviously relevant to the case of MMC and aligned with primary data collection processes. Due to limited access and/or the absence of archives, not every criteria could be adequately covered as well, missing essential data. The following discussion is organized according to the three main principles, each reviewing results of our analysis under specific criteria and indicators.

Table 6.1 The PC&I framework adapted from Worrall et al. (2009). Reprinted with permission from Worrall, R., Neil, D., Brereton, D., & Mulligan, D. (2009). Towards a sustainability criteria and indicators framework for legacy mine land. *Journal of cleaner production*, 17(16), 1426–1434.

<i>Principle</i>	<i>Criteria</i>	<i>Indicators</i>
Environmental	Rehabilitation	Greening programs during operating days Pronounced rehabilitation efforts Total area remaining Physical assessment
	Land condition	Policy summary Hazardous solid waste on site Hazardous liquid waste on site Tailings on site
	Off-site impacts	Visual, noise, and dust pollution Water quality
Socio-Political	Land use planning	Local government plans Private planning initiatives Adjacent land use plans Planning conflicts
	Legislation	International State government Local government Legislative conflicts Conflicts of interest
	Ownership	Historic Current Current owners' intentions
	Health and safety	Community safety Complaints received Health issues related to area
Economic	Equitable wealth sharing	Local communities Public sector Employees
	Local economic contribution	Direct job creation Indirect job creation
	Productive land use	Area Current uses Future plans Economic benefit

Results and Discussion

Environmental

Under the environmental principle of the PC&I framework, three criterion were found to be relevant to our case study. The first one is the rehabilitation criteria followed by land condition and off-site impacts. Despite being a major mining company for more than four decades in the island of Negros, there is scarcity of published materials pertaining to the mine's environmental programs. We were

not able to identify any company reports published anywhere or websites that could showcase the specific projects implemented by the company to improve or alleviate environmental issues. In fact, in the early 1980s, the local government of Sipalay criticized the lack of programs from MMIC/MMC to address the environmental problems that persisted through the years (Negros Occidental Historical Commission, 1984).

The first criterion under the PC&I framework for sustainability impact of legacy mines that applies to the MMC case study is rehabilitation (Worrall et al., 2009). This criterion is quantitative in nature when analyzed as Worrall et al. (2009) identified indicators such as number of sites rehabilitated, number of abandoned derelict/orphaned sites, total area rehabilitated, among others. In 1987, it was reported by the MGB during a mineral verification into the area that tree planting was pursued by MMC as part of their greening program along the slopes of the mine residential area (Momongan, 1987). At that time, a species of ipil-ipil trees were already full-grown, revealing that some rehabilitation efforts were implemented years prior, perhaps to comply (minimally) with PD 1198 (1977). This program can be considered as the earliest documented rehabilitation effort of the mining company, but no other mineral reports recovered from the MGB mentioned anything similar to this.⁹ The municipal government also expressed dismay that no rehabilitation efforts were pursued to improve the conditions in the mining site post-closure. When we (Ubaldo and Caouette) personally visited it in 2017–2019, the open-pit mine was already flooded deep with water (See Figure 6.2) and local informants mentioned that the area did not change much since the mine's closing in 2001.¹⁰

The next relevant criterion is land condition, specifically in relation to mine tailings. Over time, various areas in the mine tailings ponds have collapsed, mostly due to natural disasters (tropical storms and typhoons), bringing devastating effects to the farmlands surrounding the mining site. Tailings Pond No. 3 collapsed in 1982 “due to weak foundation, releasing an estimated tailings volume of 27 million metric tons” (Cabalda et al., 2002, p. 93). On November 1, 1996, typhoon rains caused MMC mine tailing dams to overflow, which resulted in tailings “[spilling] onto 500 hectares of rice fields”, affecting hundreds of families and causing long-lasting damage to their farming lands (Holden & Jacobson, 2012, p. 81). Despite their destructive history, the mine tailings were left as is. During the late 1990s, several environmental conservation advocate groups joined with concerned government agencies to study the water and soil condition of Sipalay. The report highlighted high levels of base metals like lead, cadmium, zinc, and cyanide in the water and soil samples (Ombion & Cadagat, 2002). Key informants stated that no other programs addressed the dangers of the mine tailings and worsening land conditions around the area.

The last environmental criterion of the PC&I framework that applies in our case study is the off-site impacts indicated by visuals, dust pollution, and water quality, among others. The sustainability of the mining company is gauged by how well it addresses the issues regarding this criterion. Topography of the area (one of the indicators for this criterion) changed greatly over time as the company



Figure 6.2 Showing the open pit of the Maricalum Mining Corporation flooded with water. Photo credit: Vivien Cottureau, 2017.

implemented an open-pit mining method. This was the reason for the updating of maps for Southern Negros which depicted a big hole in the southern part of the island. Denuded forest and lack of vegetation around the area are also increasingly visible throughout the mining site.

Dust pollution, another indicator, was also an issue for residents especially during the dry season. Local officials and former employees recalled having to sweep dust particles gathering all over their houses for the whole day when the mine was still operating.¹¹ People with asthma, the interviewees claimed, would have a hard time breathing properly during those times. Public outrage ensued as sandstorms caused by the mines triggered numerous local protests spearheaded by affected citizens and supported by local government officials. Community resistance eventually led to the issuance of a cease and desist order from the Department of Environment and Natural Resources (DENR) (Ombion & Cadagat, 2002). The provincial government condemned the mining company and blamed them for the rampant dust storms in Barangay Mambaroto, Sipalay (Espina, 2006). Locals interviewed also pointed out that the dust pollution problem persisted even until the present day although not as severe as during the operating days.

The mining spill in November 1996 aggravated previous flash floods caused by the typhoon downpour occurring in various parts of Sipalay destroying more than 455 hectares of farmland (Espina, 1996a). Overall water quality also deteriorated over the years. Outside of the toxic lake that developed after the shutdown,

one of the municipality's rivers was also polluted. Moreover, bodies of water surrounding the mines, the Montoboy and Caiwanan creeks that connect to the Sipalay River, registered an extremely high level of acidity (3.2 pH in 2007), far from the normal 7 pH (Ombion, 2006). This is very dangerous for residents, especially children, who assume that the water in the open pit is already cured and take a bath in the open pit waters from time to time. The situation had already garnered attention from national publishers during the mining operating days as one periodical vividly describes "the municipality's river turned into ugly silver from the wastes of the mine" (Tolentino, 1989, p. 3). Respondents recounted the water in the river as "pure and clean" before the mine's presence transformed it into a "milky" river owing to its color.¹² Providing further evidence on the negligence of MMIC\MMC are news reports from 1996 to 1997 citing continuous pollution to Sipalay's environment (Espina, 1996a, 1996b; Ombion & Cadagat, 2002). This wave of reports was followed by the filing of administrative charges by DENR against the mine as the government agency deemed the dangers posed by the mine as "potentially a serious problem" (Espina, 1996b).

Socio-Political

When analyzing the socio-political aspect of the mine's sustainability, the trend is similar: more negative than positive impacts according to the data gathered. During the mine's expansion in the 1980s to 1990s, several hectares of land were purchased from local farmers. But while the procurement of the land went through legal processes and farmers were compensated accordingly, some of the owners claimed that they were coerced to go into the transaction.¹³ Statements from farmer respondents underlined that the mine negotiators would threaten them by saying that they had no choice as the mine would continue to dump the waste including within the area of contention which would therefore affect the productivity of their farmlands in the long-term. This conflict worsened when one of the tailing ponds collapsed in 1982, directly affecting the farmers surrounding the area. The incident resulted in cases brought up in court, but the outcome did not favor the farmers. In the end, the local government used its influence to convert the land into government land and completed the sale to the mines to avoid further compensation issues with the affected farmers. Land issues and conflict continued but were never settled. These series of events demonstrated clear failures with regard to the land use planning criterion. Local government plans and planning conflicts were repeatedly settled in favor of the mines rather than local residents, especially farmers. Even after closure, farmers reported that their former plots of land and operated mineral lands were unproductive with little to no good utilization.

Politically, the elected municipal officers were continuously supportive of the mines. Key informants recall the influence of regulatory capture of the municipal administration stating that about half of the city's council were consistently composed of politicians originating from the barangay¹⁴ hosting the mines and/or supported/funded by the company. At one point, the municipality's vice mayor¹⁵

was a former mine worker and in 1985, a barangay captain was reported to be holding a position within the mine, in violation of the Philippine Constitution (Pellejo, 1985). The company decided not to interfere with this issue, even though it was a serious case of conflict of interest. While MMC was deeply entrenched in policy-influencing positions of power within the municipality, community welfare was not given priority.

In the PC&I framework, the intentions of the mining company's ownership is one of the criteria used for the assessment of the mines' sustainability, along with their specific employee and community relations. Historical accounts of both MMIC/MMC reveal that the companies were keen on providing funding to many programs of the municipality as well as opening up jobs during the era of its first owner, Cabarrus Sr. Before the 1980s, Cabarrus's MMIC was immensely profitable, propped up by foreign participation—principally Japanese, first with Mitsui, and later with Marubeni, beginning in July 1973 (Tsuda & Deocadiz, 1986). Cabarrus also maintained a cozy relationship with Philippine national chief executives.¹⁶ Although there were labor conflicts, controversial issues were brought up to the attention and channeled to the proper government agencies as mining worker's representatives knew which department of the mining company, they should demand accountability. However, once the company was taken over by the state-owned banks, it became more complicated with repetitive finger-pointing between the former and the current owners whenever formal complaints were made. This was apparent in the labor issues during the 1990s where responsibility for compensation to the retrenched workers were sent back and forth by the previous and the new owner of the mine, G Holdings.¹⁷

The issue of the lack of compensation and the unclear accountable party persisted years after the mine's cessation of operations. These types of ownership conflict were well documented in the series of events that unfolded in 2015 when the Department of Labor and Employment (DOLE) released a writ of possession of the facility to identify the remaining properties that could be sold to compensate the mine's workers who were retrenched more than ten years before. This action was met with resistance by the new owner of the mining site. For example, the security personnel hired by the new owner did not comply with the police officers sent by DOLE to secure the area. This event led to the closing of most parts of the mines from the public until 2017.¹⁸

In terms of the health and safety criterion, the mine provided some degree of social services but were not able to address, in a systematic and comprehensive manner, the more pressing issues on health, safety, and sustainability. While the company established a 25-bed hospital that "can be used" by the local government in dire situations, it was mostly reserved for employees of the mines and only accepted outside patients during special circumstances (Negros Occidental Historical Commission, 1984). During interviews, respondents expressed dismay that this restriction on who could be admitted as patient was in place. Many had hoped that the medical services should have been made open to all. The company also provided free potable water and electricity to the barangay directly impacted by mining, but these services were discontinued when mining operations were shut down in 2001.

The adverse environmental effects also impacted the health of the residents. Health concerns were repeatedly raised after series of mining spills in the mid-1990s (Espina, 1996a). During the 1996–1997 period when spills occurred, several cases of poisoning, skin diseases, and fish die-offs were reported (Ombion & Cadagat, 2002). The improper waste discharges of the mines were also blamed for various health related outbreaks over time (Espina, 1996a).

Economic

In this section, three economic criteria will be discussed to assess the case of MMIC/MMC: (1) equitable wealth sharing, (2) local economic contribution, and (3) productive land use. Like many other mining communities, the mine's presence was recognized as the main economic driver for its host municipality. A Sipalays Planning and Development officer explained that the local government's application for cityhood¹⁹ was largely supported because of the income coming from the mining operation. The officer recognized that the absence of economic activities brought about by the shutdown in 2001 resulted in an economic crisis. Then-mayor Oscar Montilla echoed the same sentiments when asked about job availability during the visit of former DENR Secretary Gina Lopez to the mines in 2017 (Espina, 2017).

In the PC&I Framework, the first criterion under the economic principle is equitable wealth sharing. The public sector and local community respondents as well as company employees were most associated with this criterium. Residents who were interviewed attributed a lot of infrastructure projects to the mining operations, alongside wealth generation while the mine was operating. The first documented evidence of this that we found was the mine's donation to the local church in 1956, made soon after the mine began operating (Negros Occidental Historical Commission, 1984).²⁰ Even the construction of the old municipal hall and the public market were funded by the mines. People referred to these infrastructural projects as "donations of Don Cabarrus".²¹ Local roads were also constructed around the mines which in turn made other nearby areas accessible.²²

For the local economic contribution criterion, it is possible to argue that this was fulfilled by the mines during its active years, since their operations created jobs and helped uplift the local economy. Thousands of jobs were created during the mine's operations. However, its closure led to the city's downfall as the local government had to try to create jobs to provide for the jobless former mine workers (Espina, 2017). Making things worse on the labor front were the complaints regarding unfair and unjustified employee retrenchments, as mentioned earlier in this chapter. These complaints persisted through the years even more than a decade after the mine closure.

As early as 1960, the company was already haunted by labor strikes (McMahon, 1965; United States, 1961). Similar events occurred during the 1980s. When the mines closed down in 1984, the company claimed it was due to the low copper prices (United States, 1984). This motive for closure is also encountered in various economic analyses (e.g., Dohner & Intal, 1989), and government documents (e.g., Philippines Office of the Prime Minister, 1985). However, local advocacy leaders

believed it was also due to the environmental and labor issues hurled against the companies. MMIC was already in a bad shape financially when it was seized by the bank, despite rescue efforts by the Marcos administration.²³ For example, a 1984 civil case was won by an employee after he was illegally dismissed by the company (*Sipalay Mine Free Labor Union and Cecilio T. Saludar v. Marinduque Mining and Industrial Corporation*, 1984). Nevertheless, the judgement was not executed because by that time, MMIC's assets had already been foreclosed by DBP and the PNB. A decade later, the Supreme Court affirmed that the obligation, and other such due to MMIC employees, should be shouldered by MMC as MMIC's successor (*Maricalum Mining Corp. v. National Labor Relations Commission*, 1998). In 1994, numerous retrenchment issues surfaced again. That year, MMC lost a case and was asked to pay P5.3 million to 238 retrenched employees. Retrenchment had started as early as 1992 (Espina, 1994). Persisting labor issues contributed to its shutdown in 1997 as the layoffs a year prior were again adjudged illegal by the court (Panganiban, 2015). Two years later, another set of retrenchment occurred (Resource Information Unit, 2000, p. 65 as cited in *The Mineral Industry in the Philippines*, 1999). The legacy of retrenchment and labor strikes characterized the mine's employee relations through the later years of operations.

A third criterion under the economic principle is productive land use. At first, a lot of projects seemed promising: new commercial centers were put up and idle lands were offered to be used for the benefit of local economic activities. The company established rural improvement clubs during the early 1980s, but these were eventually discontinued. Ironically, the impact of mining led to a reduction of productive farmlands after repeated spills destroyed hundreds of hectares of crops and deemed large tracts of arable lands as unproductive. Much of the agricultural lands used before were left idle as no rehabilitation plan was pursued by the mines. In the end, the local government authorities had to launch it themselves, to the dismay of the local and provincial governments (Espina, 2017).

Conclusion

Our chapter showcased different efforts and setbacks of the MMIC/MMC mining companies to address local community issues broadly encompassed by what is now considered CSR. Mobilizing the analytical lens offered by the PC&I framework, our analysis revealed that the overall negative impacts outweighed the gains and benefits that this legacy mine case brought into Sipalay.

As demonstrated, in terms of environmental sustainability principle, the community suffered from the long-term adverse consequences with little to no accountability or rehabilitation pursued by the mining company. There were too few programs that addressed the pollution brought to the waters and farmlands of Sipalay and the effects were greatly felt decades past since the shutdown. The socio-economic principle of the mine's legacy is also an ambiguous topic as the mining site was left with numerous idle lands and no proper land use programs to complement or address the resulting community concerns. Hundreds of hectares

of farmlands were contaminated after series of mining spills and the tilling pans remained with no safety protocols put in place. Even social services like access to potable water and electricity stopped together with the mine's closure. The decades-long labor issues also persisted until 2017 with no clear resolution and proper compensation until the last time that we (Ubaldo and Caouette) visited the site. While MMIC's and MMC's presence in Sipalay provided an uplift to household income during its operating days, the situation quickly turned around during closure and the adverse situation that resulted from it became the norm through the years. Our case study revealed an overreliance of the local economy on the company's operations having few sustainable local economic activities or livelihoods established early on during its operation. Not even the local government prepared itself with a post-mining closure plan.

Our chapter demonstrated the relevance of applying the PC&I framework by Worrall et al. (2009) as a means to analyze legacy mines such as the case of MMIC/MMC. The criteria and indicators that form part of the framework proved to be flexible enough to be localized and adapted to the local context as evident in the findings. Our hope is that more legacy mine studies in the Philippines be conducted as they could form the basis for policy-making bodies in regulating mines or for pushing for policy changes, especially for mining projects that are nearing closure or those that are forced to shut down.

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Notes

- 1 They are also sometimes named "orphaned mines" or "abandoned mines". For this chapter, we choose to refer to them as legacy mines.
- 2 According to Negros Occidental Provincial Government (2015), Negros was already a politico-military province as early as 1865. In 1899, the first Filipino governor of the province was appointed after the successful 1898 Negros revolution thereby establishing the Negros Republic. Sources: Materials recovered from the Negros Occidental Historical Commission (NOHC) also showed that there were already well-documented minutes of the Provincial Board sessions during the early 1900s which proves that an organized government was already running.
- 3 The authors were able to interview an old resident in Sipalay and she always referred to the company as "mi-mick" during the interviews.
- 4 The whole area claimed by MMIC also covers part of neighboring town Cauayan but the open pit mine and the company's headquarters are located in Sipalay.
- 5 After foreclosure, MMIC's assets were assigned to three corporations: MMC, which owned and operated the Sipalay mine; the Nonoc Mining Corporation, which took over MMIC's nickel mine and refinery in Nonoc Island in Surigao del Norte, located in

- Mindanao, the country's southern island cluster; and the Island Cement Corporation, set up to own and run MMIC's former cement production assets. Cabarrus was able to (re)acquire Nonoc Mining after the administration of Corazon Aquino (1986–1992) decided to privatize numerous government assets, including those acquired via debt-to-equity conversion following bankruptcy during the rule of her predecessor, Ferdinand Marcos (1965–1986).
- 6 A fourth pillar, usually in the form of a political or governance pillar, has been advocated to complement the three existing pillars but since the framework was mainly developed from voluntary initiatives of private companies and NGOs, Worrall et al. simplified the framework to focus on “social principal to incorporate political and governance considerations as the case study showed that legislative decision-making processes, at a range of scales, can strongly influence how legacy mine land is managed and regulated” (Worrall et al., 2009).
 - 7 The authors were not able to recover data pertaining to these quantitative indicators.
 - 8 This chapter interprets these “programs” as CSR of MMIC/MMC.
 - 9 This could mean two things: (1) MMC really did not have any more environmental programs that were worthy of recognition by local newspapers or even the local government or (2) there is lack of coverage and documentation for the area of MMC since it is a remote region in Negros Occidental.
 - 10 In 2017, the mining site was not open to the public. Only a few areas are accessible for tourists. But in 2018, local authorities opened the area and we (Ubaldo and Caouette) were able to explore much of the mining site including entry to the remains of what used to be their processing plants.
 - 11 These were the exact descriptions of the respondents. They even exaggerated stating that they had to clean up mountains of dust so as to express their extreme distress of having dust particles entering their homes daily.
 - 12 The locals interviewed used “milk” to describe the color of the river instead of white. This is a normal language reference in the Philippines.
 - 13 One of the local leaders who was on the forefront of the movement against the mine stated that his family was living within a kilometer of the mine's tailings pond, were pressured to let go their land.
 - 14 The smallest municipal administrative unit corresponding to a neighborhood.
 - 15 A vice-mayor is the second most powerful government official in the municipality behind the mayor, serving as presiding officer of the municipal legislative body.
 - 16 Cabarrus was “a close friend of President [Diosdado] Macapagal [1961–1965]”, and, in 1962, he “received a direct loan of P19.3 million a loan guarantee of P108 million from the Development Bank of the Philippines, the largest loan ever granted to a private establishment by a government financial institution [at the time]” (Wurfel, 1964, 708). During the Marcos regime, President Ferdinand Marcos secretly owned shares in the Marcopper Mining Corporation (Coumans, 1995, 37). In fact, one of the Swiss bank accounts later determined to have held Marcos's ill-gotten wealth contained shares in MMIC as of December 1969 (Manapat, 2020, 420).
 - 17 The properties of Maricalum Mining were foreclosed and sold to G Holdings on December 3, 2001. G Holdings became the third owner of the mining site, but no operations were pursued under their supervision.
 - 18 When one of us (Ubaldo) first visited the mines in 2017, it was still closed to the public. Security personnel carrying firearms were scattered in parts of the mines' property. The next year, the whole vicinity of the mines was already open to the public and it was possible for authors to visit. Metal structures were being dismantled that were said to be sold for the compensation of the retrenched mining employees.
 - 19 In the Philippines, a municipality receives a smaller annual budget than cities. Thus, a bigger budget means more funding for local programs. In the context of Sipalay, government income and population are the qualifications that were impacted by the mining sector leading to cityhood.

- 20 Church festivities are highlights of the year in Philippine villages. The church influences the people greatly and activities organized by the parish. These are also participated by most of local residents; thus, the donation and promotion of the mine was advertised handsomely during these events.
- 21 Unsurprisingly, the infrastructure projects were remembered by locals as goodwill from the mine's owners. The personality of Cabarrus was always involved when people reminisced of the days of the mine.
- 22 The presence of mine roads was repeatedly mentioned in several reports from MGB across decades.
- 23 For instance, in Letter of Instruction No. 1293, series of 1983, Marcos ordered several government agencies involved in infrastructure to procure cement solely from MMIC, specifically its Island Cement subsidiary.

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7 Indigenous Peoples and the uranium mining sector in northern Saskatchewan

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Introduction

Saskatchewan has some of Canada's most comprehensive and effective relationships between Indigenous Peoples and mining corporations. Based on the richness of its mineral deposits, particularly in uranium, and the long-term prospects for profitable mining, the region attracted substantial investment. While the Government of Saskatchewan does not have a particularly strong relationship with First Nations and Métis communities, mining companies and the First Nations and Métis people of the region overcame decades of separation to create substantial and sustainable collaborations that have emerged as a model for Corporate Social Responsibility (CSR) and meaningful corporate-community cooperation (Haalboom, 2014; Parsons & Barsi, 2001). This is particularly the case with the uranium industry, Cameco Corporation and Orono (formerly Areva Resources Canada), and the Indigenous Peoples of northern Saskatchewan.

Background

Saskatchewan's mineral wealth is formidable including a series of large-scale potash properties that collectively produce about one-third of the world's total potash. Other minerals under active development and exploration include gold, diamonds, platinum, rare earth minerals, and base metals. The province's mining companies spent \$214 million on exploration in 2021; exploration spending is expected to increase in subsequent years as operations expand in potash, uranium, and a variety of critical and rare earth metals. Saskatchewan had mineral sales of \$8.6 billion in 2021 (Government of Saskatchewan, 2022). Mining extraction is responsible for 25.92% of Saskatchewan's GDP and is by far the largest contributor to Saskatchewan's economy; no other sector is responsible for more than 10% (Statista, 2020). Saskatchewan is a major producer of uranium; it is responsible for 13% of global uranium production. In northern Saskatchewan, which has a population of close to 40,000 people, about 85% of whom are Indigenous, uranium mining dominates the regional economy.

The population of northern Saskatchewan is distributed among more than two dozen small communities, several accessible only by air and riverboat.

The largest, La Ronge, also includes the contiguous community of Air Ronge. Nearby is the largest reserve of the Lac La Ronge Indian Band's multiple reserves. There are several other First Nations reserves within less than an hour's drive of La Ronge. All the other communities are under 2,000 people; several have fewer than 200 residents. The population is predominately Indigenous. The largest percentage (approximately 60%) are Métis (individuals of Indigenous and newcomer ancestry). First Nations Peoples, living in almost a dozen communities, represent a quarter of the population.

Indigenous Peoples in northern Saskatchewan have, as a group, among the lowest annual incomes in Canada, an unwelcome distinction they share with First Nations and Metis communities in northern Manitoba and northern Ontario (but not in northern Alberta to the west, where the oil and gas industry has delivered many jobs and high incomes to Indigenous communities). Traditional language use remains comparatively strong as does regional harvesting activity although participation levels among young people appear to be declining. (Traditional activity is down across the country, a reflection of changing northern lifestyles, social challenges at the community level, a sharp drop in wildlife connected to climate change and other factors.) The communities endure severe infrastructure deficits, particularly in such areas as housing, water supplies, fire protection, internet access, road access, and community facilities. High school completion rates are about half of the provincial rate and regional long-term unemployment is much higher than the provincial average. The people of the region suffer from some of the highest teenage suicide rates in the world, high HIV rates, a distressing number of deaths from opiate use, and many health and other challenges associated with systemic and deeply entrenched poverty. In the context of these social and cultural realities, the accomplishments of Indigenous Peoples in northern Saskatchewan are particularly significant. The region has a substantial level of Indigenous business development and employment in the northern resource sector. The Métis of northern Saskatchewan are among the most politically active in the country, with two settlements, Pinehouse, and Ille a la Crosse, known for their political creativity and high level of community engagement. Several of the First Nations, particularly Clearwater First Nation and Peter Ballantyne Cree First Nation, have made impressive strides in community well-being, locally controlled health care, legal settlements, and economic development.

The region has weak connections to the province's political and administrative system, particularly since the Saskatchewan Party came into office in 2007. Northern Saskatchewan vote predominantly for the New Democratic Party. In the minds of northern residents, the government provides little support for Indigenous requests for resource revenue sharing and greater participation in regulatory processes. Unexpectedly, the Saskatchewan Party won a northern by-election in 2022, giving the region its first seat on the government benches in 15 years. At the national level, the election of the Liberal Party of Canada in 2015, ushered in a new era in Indigenous-government relations. The government of Prime Minister Justin Trudeau dramatically expanded federal funding for Indigenous governments and Peoples, including the Métis Nation of

Saskatchewan, and introduced the United Nations Declaration on the Rights of Indigenous Peoples into Canadian law. These initiatives included Bill C-69, which expanded the regulatory processes related to resource projects, adding to the authority gained through a long series of Indigenous victories in the Canadian courts and ensuring First Nations and Métis have a greater say in the approval of mining and infrastructure projects (Gallagher, 2012; Laidlaw, 2018).

The Canadian Uranium Mining Industry

Northern Saskatchewan owes much of its contemporary economic opportunity to the advent of the nuclear age. During World War II, commercial and government interest in uranium grew dramatically as uranium has both military and civilian uses. The Government of Canada, understanding the strategic importance of the mineral to its British and American partners, took an active interest in the sector, nationalizing the Eldorado Gold Mines Company which had a uranium mining operation at Port Radium, Northwest Territories, in 1943. Eldorado opened a mine at Uranium City, Saskatchewan in the early 1950s. Eldorado became a major producer and processor of uranium for use in nuclear plants. The rich uranium properties in northern Saskatchewan and the growing interest in nuclear power attracted substantial exploration activity to the region (Bothwell, 2011).

In the 1950s, Indigenous Peoples had no legal standing in the resource development process and were not consulted about mining activity on their territories. Eldorado favoured the construction of a company town and relied on the importation of skilled workers from outside the region. A few regional residents found jobs with the mining firms, typically in exploration and early-stage construction activities, but rarely to the level of middle management or above. The actual mining work and most of the high skill and managerial positions were filled by non-Indigenous Peoples from outside the north (Heber, 2005).

Northern Saskatchewan was transformed by the uranium mining activity. Hundreds of workers and their families moved into the region in support of the exploration and development work. New roads were developed, opening vast territories hitherto used almost exclusively by Indigenous Peoples. Hunting pressure increased dramatically, interfering with annual harvests for long-time residents. The environmental standards of that time, considerably more relaxed than 21st century requirements, provided fewer protections for land, water and wildlife, resulting in a considerable amount of damage to the regional environment. The physical work was localized to a small number of mining sites and exploration zones, but the social and economic consequences expanded much more broadly, particularly along the road corridors leading to the mining sites.

The Government of Saskatchewan entered the mining sector in 1974 when it created the Saskatchewan Mining Development Corporation, a provincially owned firm that led exploration and mining activities in northern Saskatchewan. The Crown Corporation model was popular in Canada, both federally and provincially, with governments holding ownership positions in companies deemed to be of importance to the state. The emergence of more industry-friendly policies in the 1980s saw a reversion from state ownership to private sector leadership.

Table 7.1 Canadian uranium reserves and resources. Reprinted with permission from World Nuclear Association. (2022, August). *Brief history of uranium mining in Canada*. <https://world-nuclear.org/information-library/country-profiles/countries-a-f/appendices/uranium-in-canada-appendix-1-brief-history-of-uran.aspx>

Mine	Province	Operator	Tonnes U	Tonnes U ₃ O ₈	Average ore grade U ₃ O ₈ ^a (%)	Category
McArthur River	Sask	Cameco	142,000	167,700	9.60	Proven & probable reserves
			1,850	2,180	3.8	Measured & indicated resources
Cigar Lake	Sask	Cameco	82,720	97,550	15.9	Proven & probable reserves
			32,500	38,340	16.24	Measured & indicated resources
Millennium	Sask	Cameco	29,200	34,400	2.39	Indicated resources
			11,150	13,160	3.19	Inferred resources
Rabbit Lake	Sask	Cameco	15,270	18,000	0.79	Indicated resources
McClellan Lake	Sask	Orano	284	335	0.38	Proven & probable reserves
			5,903	6,961	0.57	Measured & indicated resources
Midwest	Sask	Orano	19,500	23,000	2.3	Indicated resources
Dawn Lake	Sask	Cameco	6,885	8,120	4.42	Indicated resources
Wheeler River	Sask	Denison	23,000	27,000	16.2	Probable resources
Phoenix & Gryphon			19,000	22,000	1.5	Probable resources
Fox Lake	Sask	Cameco	26,195	30,892	7.99	Inferred resources
Shea Creek	Sask	Orano-UEX	26,100	30,770	1.48	Indicated resources
			10,870	12,800	1.01	Inferred resources
Roughrider ^b	Sask	Hathor/Rio	22,300	26,300	2.0–11.6	Indicated & inferred resources
Tamarack	Sask	Cameco	6,900	8,100	4.42	Indicated resources
Patterson Lake	Sask	Fission	39,900	47,100	1.85	Indicated resources
South			12,600	14,900	1.30	Inferred resources
Arrow	Sask	NexGen	80,600	95,000	4.35	Measured resources
			18,150	21,400	1.36	Indicated resources
			31,000	36,700	0.83	Inferred resources
Kiggavik	Nunavut	Orano	48,953	57,730	0.554	Indicated resources
Michelin	Labrador	Aurora (Paladin)	32,430	38,240	0.10	Measured & indicated resources
			8,820	10,400	0.12	Inferred resources

(Continued)

Table 7.1 (Continued)

Mine	Province	Operator	Tonnes U	Tonnes U ₃ O ₈	Average ore grade U ₃ O ₈ ^a (%)	Category
Jacques Lake	Labrador	Aurora (Paladin)	4,000	4,700	0.08	Measured & indicated resources
Matoush	Quebec	Strateco/ICU	4,740 ^b	5,590	0.954	Indicated resources
			6,320	7,450	0.442	Inferred resources

a Average ore grades given as percentage of U₃O₈ in the ore.

b Not included in latest company reports.

As the industry evolved, the SMDC merged with Eldorado Resources to create Cameco Corporation in 1988. Ownership was divided between the Government of Canada (38%) and the Government of Saskatchewan (62%). By 2002, Cameco was privately owned (the company played an active role in securing the synchrotron, Canada's largest scientific instrument, for the University of Saskatchewan). Governments remained involved in Cameco's business, however, particularly in the remediation of former mining sites. For its part, Cameco remained an industry leading firm, highly regarded for its technological innovations in mining, its safety record and its community relationships (McIntyre & Cook, 2002; Parsons & Barsi, 2001).

Northern Saskatchewan has world-class uranium properties (See Tables 7.1 and 7.2 below). The MacArthur River uranium mine, opened in 1999 and shuttered in 2019–2022 due to declining world prices, was the world's highest-grade operation. The mine, when functioning, uses innovative remote mining techniques that distance workers from the rock face. The ore is processed at the plant at Key Lake, the site of a former mine. Cameco (approximately two-thirds) and Orono (formerly Areva, one-third) jointly own the property. McLean Lake, operated by Orono, is described by its owners as being the most technologically advanced uranium operation in the world. Production was suspended in 2020. Cameco's Rabbit Lake started production and ceased operations in 2016, with most of the ore removed. Cigar Lake, also owned by Cameco, opened in 2014, and has the favourable combination of high-grade ore and a large deposit. The mine and related processing facilities endured several market-related closures in 2020–2021. Across Saskatchewan, overall production of uranium fell by half between 2016 and 2020. The mines brought considerable prosperity to northern Saskatchewan, although the impact on provincial GDP was not matched by any comparable increase in wealth for the people and communities of northern Saskatchewan. Uranium mining was, however, the dominant form of economic activity in the northern half of the province and, for Indigenous Peoples and communities looking to engage with the non-governmental wage and commercial economy, it remained the primary option (World Nuclear Association, 2022).

Table 7.2 Annual uranium production (tonnes U). Reprinted with permission from World Nuclear Association. (2022, August). *Brief history of uranium mining in Canada*. <https://world-nuclear.org/information-library/country-profiles/countries-a-f/appendices/uranium-in-canada-appendix-1-brief-history-of-uran.aspx>

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
McArthur River	9,064	8,868	9,135	8,675	8,673	8,173	7,303	90	0	0
Cigar Lake	–	–	0	156	5,124	7,863	8,165	8,166	8,165	4,581
McClean Lake	0	0	0	51	0	0	0	0	0	0
Rabbit Lake	1,721	1,744	1,872	1,889	1,912	505	0	0	0	0
Total	10,785	10,612	11,007	10,771	15,709	16,541	15,467	8,256	8,165	4,581
cf. World	63,082	68,974	69,966	66,087	71,113	74,357	71,361	63,861	64,554	56,287

Post World War II Relations between Indigenous Communities and Mining Firms

It is difficult to separate the impact of mining on Indigenous Peoples from the many other changes that occurred in the post-World War II era. The rapid expansion of the Canadian welfare state, combined with specific and paternalistic efforts to recast Indigenous cultures, brought the people off the land and into government-built villages. Many northern Saskatchewan children were moved out of the region to government-run residential schools. Between the 1950s and the 1970s, welfare dependency became a fact of life for Indigenous communities across the country and in northern Saskatchewan. Other changes—the emergence of regular air travel, expanded radio and television services, government social programming, enhanced educational and government health programs, and the many intrusions of North American popular culture—brought about more general and unpredictable shifts in regional Indigenous societies. Because of the high profile of the uranium mining activities, there was a tendency to attribute the major societal changes to the industry, although communities located considerable distances away from extractive activities had comparable socio-cultural experiences (Beatty et al., 2012; Berdahl et al., 2011).

Resource companies in Canada started, generally in the 1970s, to give greater attention to community relations and engagement with Indigenous communities. Several of the larger mining companies, including Syncrude and Suncor in the oil sands of northern Alberta, developed innovative employment and business relationships with nearby communities. Practices varied, including community support payments, focused training and recruitment efforts and even joint ventures with Indigenous firms and communities. These efforts brought Indigenous communities into closer relationships with the mining companies. However, few

Indigenous employees, even though making up half of the industry's northern workforce, progressed through the company ranks. Employees hired by the companies, including Cameco, its predecessors, and Areva often did not stay in the North but used their technical skills and work experience to secure jobs outside the region. There was, for example, considerable movement of northern Indigenous workers to the higher wage, fly-in and fly-out environments in the oil sands of northern Alberta (Finnegan & Jacobs, 2015; Storey, 2010).

Over time, Indigenous communities and their supporters focused their political efforts on northern mining companies, drawing attention to the disparity in the incomes of Indigenous Peoples and the mining industry and pointing out the wealth being extracted from the region. In the view of regional representatives, little of the money the mines generated rebounded to the benefit of the people and communities in northern Saskatchewan. Starting in the 1970s, Indigenous Peoples across the country took to the courts repeatedly to secure a greater role in the industry and receive appropriate financial returns from resource development activities on their territories. Indigenous Peoples legal victories started with hunting and fishing rights and expanded into areas such as mining, hydro-electric development and the construction of major infrastructure projects. The major turning point was in 2004, with the transformational Supreme Court of Canada decisions in the cases of *Haida* and *Taku*. The Court determined that the Crown (and by implication, project proponents) had a “duty to consult and accommodate” Indigenous Peoples on projects in their traditional territories (Coates, 2015; Coates & Crowley, 2013).

The 2004 decisions were re-enforced through the Government of Canada's Bill C-69 (passed in 2019) which expanded community engagement in resource development decisions and included both downstream and cumulative impacts) and Bill C-15 (passed in 2021) which started the process of establishing the United Nations Declaration on the Rights of Indigenous Peoples as part of Canadian law, although the law was more a “promise to make promises” than a detailed implementation plan (Government of Canada, 2021). UNDRIP included the expectation that a development project required the “free, prior and informed consent” of Indigenous communities affected by the activities. The mining industries did not object to the legislation, to the surprise of many outside observers. The Mining Association of Canada, for example, supported the passage of Bill C-69, arguing that existing practices approximated or exceeded the requirements of the new legislation and that the partner companies were prepared to adapt their practices and methods of consultation accordingly (The Mining Association of Canada, 2022). UNDRIP, similarly, passed through the House of Commons with little protest, including from the mining industry which had already adapted its practices and processes to both Indigenous aspirations and shifting Indigenous legal authority.

A combination of three elements—the established legal authority of Indigenous Peoples, emerging and widespread corporate ESG (Environmental, Social and Governance) practices, and growing community engagement with the industry—caused a reorientation of the mining industry. There were Indigenous Peoples active in anti-mining and particularly anti-uranium extraction protests, but these

were minority movements, including in northern Saskatchewan (Bratt, 2015; Graetz, 2014). In general, Indigenous communities understood the employment and income benefits associated with the work, supported the development of joint ventures and Indigenous-owned businesses, and participated in corporate planning, evaluation, and remediation efforts. Companies, likewise, understood the requirements for community engagement and active participation. Moreover, the firms soon realized that engagement with Indigenous communities brought significant commercial benefits, including lower employee turn-over through the hiring of local people, more cost-effective contractors, and fewer complications with northern communities (Hadersbeck, 1998).

Practices varied dramatically across the country and within Saskatchewan. Junior mining companies, typically involved with exploration and early-stage development activities, lacked the revenue and long-term operations to sustain major, multi-year commitments to Indigenous partners. In contrast, companies with multi-generational, high-quality properties, Suncor in northern Alberta (Suncor, 2022.; van Luijk et al., 2021), Vale's Voisey's Bay property (Gibson, 2006; Pain & Paddon, 2008), Cameco in northern Saskatchewan, and potentially the Baffinland iron ore project in Nunavut (Bernauer, 2019; Schwartz, 2016) have both the financial resources and the long-term planning horizon to warrant extended relationships with local communities. Industry-leading practises emerged on both the corporate (Newmont (2021), Agnico Eagle (Agnico Eagle, 2021), Victoria Gold (Victoria Gold, 2022)) and Indigenous sides (Tahltan in Northwest British Columbia (Tahltan Central Government, 2020), the Inuit of Northern Quebec (Bird & Nixon, 2004) and Tr'ondëk Hwëch'in in the Yukon). The relationships, even in these cases, are not without tensions; the Tahltan rejected a proposed mine in 2021 (Canadian Press, 2021) and the Tr'ondëk Hwëch'in has been extremely careful in its work with mining companies in the Dawson City region.

Northern Saskatchewan and Uranium Mining

In northern Saskatchewan, Cameco established highly successful collaborations with the Métis community of Pinehouse which was transformed from one of the most socially damaged settlements in the province (a national television news program *The Fifth Estate*, once described the settlement as the "drinking capital" of northern Saskatchewan (Natomagan, 2015) to an economically engaged and socially progressive community.

Similar collaborations emerged with workers and communities in Northwest Saskatchewan and in the Athabasca district in the Far North. Indigenous communities were, at the political level, cautiously supportive of engagement with the mining sector, but struggled to ensure comprehensive participation with Cameco. The firm pursued a variety of initiatives to maximize local employment, including adapting fly-in/fly-out schedules to facilitate regional involvement, changing approaches to substance monitoring, innovating on employment and training programs, and transforming relationships with Indigenous businesses (Finnegan & Jacobs, 2015).

The combination of Indigenous legal empowerment, corporate re-evaluation of strategies, government encouragement, and societal pressures forced a comprehensive re-imagining of Indigenous-corporate relations across Canada but specifically in northern Saskatchewan. The new model focused on four key elements. The first was community benefits, typically including a cash contribution to the community for purposes designated by the Indigenous government. Historically, this was both the starting and end point for official engagement between companies and Indigenous communities. Second, companies were also keen to expand regional employment, initially as a concession to local interests and subsequently as a significant element in commercial planning. This meant, in practical terms, regional preferences in hiring and targeting, training programs and in-company professional development. Preferentially contracting for Indigenous business, the third element, was initially seen as a small component of the overall collaboration but quickly emerged as the cornerstone of community-corporate engagement. Companies like Cameco discovered that Indigenous companies were good value, and the preferential arrangements were offset by a requirement for price and quality competitiveness. The fourth element, equity participation in the company, has taken root in the Canadian oil sands (Quan, 2021) and in Alaska but is not yet a feature of northern Saskatchewan's Indigenous engagement with uranium mining.

Over a 20-year period, Indigenous Peoples emerged as a large crucial part of the uranium mining workforce in northern Saskatchewan, with close to 40% of Cameco's mining workforce coming from northern Saskatchewan (lower, it is important to note, than the company's 67% target for northern employees). While the workers continued to have difficulty transitioning from entry level and trades positions into management and highly skilled posts, the employment nonetheless brought career opportunities and solid economic returns to the region. Importantly, not all of the northern-selected workers opted to stay in the North; some relocated to other parts of Canada and a significant percentage of the workers shifted to larger southern centres and worked with the company on a fly-in/fly-out basis (Berman et al., 2020).

Impact Benefit Agreements in Northern Saskatchewan

The scale of industry engagement with Indigenous communities in northern Saskatchewan is unique and comprehensive. Cameco first signed Impact Benefit Agreement (IBA) with the people of the Athabasca basin in 1999, providing a framework for engagement activities. In June 2016, Cameco and its sister uranium mining company Areva modernized the arrangement through a \$2 billion agreement with the Denesuline First Nations people of Hatchet Lake, Fond Du Lac, and Black Lake and the communities of Camsell Portage, Uranium City, Wollaston Lake, and Stony Rapids (Cameco, 2016). The initiative incorporated a range of priorities, including direct contributions to communities, provisions for shared environmental stewardship, support for Indigenous business development, employment and training, and active engagement with community members

and governments. As the lead negotiator for the Indigenous communities, Diane McDonald, observed, “The renewed partnership agreement gives the Athabasca communities certainty to ensure that the companies operate sustainably, bringing positive changes for the future generation” (Cameco, 2016, para. 4).

In the early 21st century, the Government of Saskatchewan routinized the process for creating IBAs in northern Saskatchewan. To receive mining permits, mining corporations must negotiate a “mineral surface lease agreement” with the Ministries of Environment and Governments Relations, and a “human resource development agreement” with the Ministry of Immigration and Career Training (Government of Saskatchewan, 2021). These agreements, which are with the Government of Saskatchewan rather than with the local Indigenous communities, are meant to ensure that mining corporations meet their obligation to ensure that their operations will provide benefits to the local population.

The mineral surface lease agreement, which allows the long-term rental of Crown land, requires the mining corporation to commit to environmental protection, occupational health and safety requirements, and socio-economic benefits for northern residents. The human resource development agreement expects mining corporations to provide training and employment opportunities for Northerners (Government of Saskatchewan, 2018). The Government of Saskatchewan reports that over the past 30 years, the mineral surface lease agreements have brought: “an increase in local skilled workers, competitive local suppliers, and better-informed communities” (Government of Saskatchewan, 2018).

Importantly, these agreements are between mining corporations and the government, not between the mining corporations and the Indigenous communities. The Government of Saskatchewan notes that the role of the mining corporations is to: “make commitments for socio-economic benefits for Saskatchewan’s North”, while the province is committed “to a spirit of cooperation with industry and to use best efforts in providing literacy and basic education” (Government of Saskatchewan, 2018, p. 2). Specifically, the mining corporations are expected to: “commit to their best efforts in maximizing opportunities in four areas: employment, training, business, and compensation to previous permit or leaseholders” (Government of Saskatchewan, 2018, p. 2).

All mining operations in northern Saskatchewan have negotiated agreements with the Government of Saskatchewan, giving form and structure to the collaboration process. Mining is the largest private-sector employer in northern Saskatchewan, accounting for 3,900 jobs in 2012 and just 1,600 jobs in 2018, following a sharp decline in uranium prices (Government of Saskatchewan, 2018). The mines had a 39% Indigenous workforce, which is one of the highest rates of Indigenous employment in the Canadian industrial sector and reported that 68% of northern workers continued to live within the North (Government of Saskatchewan, 2018). Additionally, the mining corporations fulfilled their commitments for employee education and training through external partnerships, in-house employee development, and upskilling programs for employees. Cameco procured 45% of its supplies from northern businesses, shared information about business

opportunities to the community, and employed staff to liaise with northern businesses (Government of Saskatchewan, 2018).

The provincial government supported the corporation's activities. For its 2018 contribution to workforce development in the North, the Government of Saskatchewan:

- Awarded \$29,000 in scholarships,
- Awarded 100 Apprenticeship scholarships worth \$1,000 each,
- Awarded \$1 million to eight programs focused on increasing the number of women and Indigenous Peoples in mining,
- Provided \$1.6 million for the “Following Their Voices” initiative,
- Co-hosted the 49th annual Saskatchewan Geological Open House in Saskatoon,
- Sponsored the tenth annual Saskatchewan Mining Supply Chain Forum,
- \$750,000 for a new Targeted Mineral Exploration Incentive to encourage exploration of metals and diamonds,
- Approved the Seabee gold mine to expand their Tailings Management Facility to increase capacity for an additional ten years of operation,
- Approved the proposed Star-Orion South Diamond mine project,
- Introduced the Prairie Resilience strategy to reduce potash, coal, and uranium mining by 5% by 2030,
- Funded the northern Saskatchewan Environmental Quality Committee,
- Allocated \$125 million spent to date to clean up old uranium sites that were developed before contemporary regulations, and
- Maintained competitive tax regimes, efficient permitting procedures, and certainty around environmental regulations and land claims, which led to the Fraser Institute naming Saskatchewan as the third most attractive jurisdiction in the world for mining (Government of Saskatchewan, 2018); the province has maintained a high rating for several decades.

In addition to the expectations of the Government of Saskatchewan, there were, in 2018, five private collaboration agreements between uranium operations and northern communities (Government of Saskatchewan, 2018). For example, there is the Ya’Thi Néné or “Lands of the North” collaboration agreement negotiated between Cameco, Areva and seven Athabasca Basin communities (Cameco, 2016). Perhaps more than the agreements between the Government of Saskatchewan and the mining corporations, the Lands of the North agreement provided Cameco and Areva the “social license” to collaborate with Indigenous communities in a mutually beneficial manner. Although the agreements overlap with the commitments made to the Government of Saskatchewan, the Lands of the North agreement offers funding for specific projects of interest to the northern communities. As well, the agreement provides a form of profit-sharing where annual production-based payments are given to a community-based trust that will be used to promote the well-being of community members (Cameco, 2016). This trust will then be used to fund initiatives for health, housing, the preservation

of culture, language and traditions, infrastructure, education, and economic opportunity (Cameco, 2016).

The impact of these evolving partnerships on Indigenous businesses has been dramatic. Cameco proved open to working with northern-owned businesses; equally, Indigenous entrepreneurs and community-owned corporations were enthusiastic about engaging with the mining firms and building commercial capacity. In 2016, Cameco and Areva Resources Canada established a non-profit called the Six River Fund dedicated to the economic and social development of northern Saskatchewan. Plans call for the fund to eventually reach \$50 million. A Board made up of people from local communities like Fond du Lac and English River First Nation will allocate the money (CBC News, 2016). In 2019, \$171,500 was distributed to numerous applicants for initiatives directed towards improving mental health, suicide prevention, and family supports, under the condition that 25% of funding for the project come from elsewhere (Six Rivers Fund, 2021).

The development corporations quickly assumed a much more prominent role in the northern economy. Pinehouse Business North, a community-owned development corporation, grew rapidly in response to growing opportunities in the mining sector. The Kitaski Management Limited Partnership, owned by the Lac La Ronge Indian Band, developed almost a dozen subsidiary firms, often drawing on Cameco contracts and using this business as a foundation for commercial expansion. In the Athabasca District, the Athabasca Basin Development Corporation, owned by seven Indigenous communities, evolved into a highly successful commercial operation, investing in regional businesses, coordinating relations with Cameco and other firms, and building economic opportunity in the area. By 2020, the ABDC companies were producing approximately \$150 million in annual revenues.

In northern Saskatchewan, Indigenous Economic Development Corporations (IEDCs) emerged as major players in the regional economy. Thirty years ago, the small number of Indigenous businesses in the region was either local firms (gas stations, hotels, hunting, and fishing operations) or community-owned stores, including an impressive coop store based in Stanley Mission. Through engagement with the extractive industries, which served as the foundation for expanded work with local and provincial governments and other industries, these community-owned enterprises became key commercial actors across the North and, in some cases, outside the region. The IEDCs are owned by their communities: members are the beneficiaries and exercise shareholder-like control over the company. The IEDCs operate fully owned businesses, participate in joint ventures and own shares in other firms. The IEDCs are among the most influential businesses in northern Saskatchewan; collectively, they are driving the regional economy alongside their mining partners. They are consistently among the largest employers in the region, approaching employment, investment and business operations in an employee and community-centric manner. Most importantly, the IEDCs have produced commercial profits in the North, allowing the communities to invest in local businesses and workforce development and to contribute substantial revenue to Indigenous governments (White, 2016).

Some communities, led by the Dene settlement of English River located almost 600 kilometres northwest of Saskatoon, used the commercial opportunities presented by mining to expand their economic base. The English River First Nation of approximately 1,600 people (divided almost equally between on-reserve and off-reserve residents) had two major assets: their collaborations with the uranium mining industry and the financial resources related to what is called the Treaty Entitlement Process (by which First Nations are compensated by the federal and provincial governments for not being given sufficient land when their reserves were established). The English River First Nation's development corporation, Des Nedhe Group, has major commercial connections with the uranium sector. Des Nedhe Group established an urban reserve (a commercial, non-residential site) in Saskatoon that they use to further their business interests. Des Nedhe Group provides a full range of commercial services within and beyond Saskatchewan. Their largest contract, one that challenged prevailing international impressions of Indigenous companies, was to oversee the refurbishment of one of Canada's nuclear power stations, Bruce Power, in southern Ontario (Bruce Power, 2019).

Collectively, Indigenous companies, staffed largely by Indigenous workers, also actually do much of the mining development in northern Saskatchewan. Their companies maintain infrastructure, work on mine development, complete much of the underground work as subcontractors to Cameco and Orono, provide various services and deliver supplies. The corporations do not operate company towns, as they did in the past, or function as fully integrated mining firms. Instead, they contract out much of the work, a great deal of it to northern Saskatchewan firms. This means that the economic well-being of Indigenous communities in northern Saskatchewan is tied directly to the fate of the mining companies and, equally, to world prices for uranium. In the early part of the 21st century, uranium prices were under US\$20 per pound until 2003 when demand for nuclear power increased and the price of uranium rose with it. By the beginning of 2007, prices were US\$72 per pound and by the middle of the year reached an all-time high of over US\$136. As the price soared, employment spiked upwards, the companies supported community activities generously, and the IEDCs flourished. Conversely, when uranium prices declined sharply after the 2007 spike and again from 2012 to 2021 when uranium prices dropped under US\$50 a pound, even falling as low as US\$18 a pound, the result was wide-spread unemployment and a signification region-wide recession. There are few off-setting industries in northern Saskatchewan; government transfer payments and regional civil service employment outstrip the next closest economic sector, forestry, and commercial opportunities beyond mining are few and far between. Regional communities, particularly Ille a La Crosse, Buffalo Narrows, Pinehouse, and Lac La Ronge, experienced substantial job loss, with as many as one quarter of regularly paid employees let go until uranium prices began to rebound in late 2021 (Pistilli, 2021).

Indigenous Peoples and communities are not uncritical observers of the Saskatchewan mining sector. The industry has strong government support and Saskatchewan mining is typically ranked as one of the most attractive mining investment markets in the country. First Nations and Métis communities have

limited confidence in the provincial government; until the 2022 by-election in Northwest Saskatchewan, the region typically voted for the New Democratic Party and not for the governing Saskatchewan Party. The communities have members who strongly protest uranium mining and the nuclear sector generally, and Indigenous Peoples continue to monitor exploratory and development work closely and often with a critical eye. New protocols and regulations ensure Indigenous participation in review, assessment, and remediation work and provide multiple avenues for Indigenous intervention on development projects. Furthermore, all uranium and nuclear projects in Canada are subject to extensive and regular scientific and technical evaluations and re-permitting, providing a high level of community engagement with sectoral oversight. The communities are not unvarnished supporters of uranium mining, but they clearly understand that the region's economic future lies in the continued development of northern Saskatchewan's uranium and other mineral resources. Resource revenue sharing, a now-common approach to economic reconciliation with Indigenous Peoples, has found little political traction in Saskatchewan. The New Democratic Party embraced the concept in the 2011 provincial election, but they were solidly defeated by the Saskatchewan Party, which still remains steadfast in its rejection of the concept. The idea—which in other jurisdictions involves guaranteeing Indigenous governments a share of resource revenues—remains very popular with Indigenous Peoples.

During the lengthy negotiations that led to the 2016 agreement between Cameco and the communities of the Athabaskan Basin, the company's effort was led by Sean Willy, a Métis from the Northwest Territories and one of the country's most accomplished corporate-Indigenous collaborators. He worked closely with the Métis and First Nations communities and made a concerted and successful effort to connect community aspirations with company objectives. When Cameco was exploring the development of uranium properties in Australia, he brought Indigenous leaders from that country to northern Saskatchewan to learn from one another. For several years, Mr. Willy took community representatives from the region with him to lobby politicians and senior government officials in Ottawa on Cameco's behalf. Together, a major mining company and diverse Indigenous communities were a major force, joining together to encourage carefully managed mining development in the Canadian North (S. Wiley, personal communication, 2022).

Conclusion

The relationships between Indigenous Peoples and mining companies in northern Saskatchewan, have evolved dramatically in recent decades. Pushed to the sidelines in the post-World War II era, Indigenous Peoples subsequently forged a substantial and sustainable place in the provincial mining economy. Through employment, business development, and community benefits and with a substantial and legitimized role in resource development review and oversight, Indigenous Peoples secured significant returns from the mining sector.

Despite these efforts, and with substantial good will among Indigenous Peoples, community and government officials, engagement with the mining sector has not produced widespread changes in Indigenous communities. The well-being index constructed by the Government of Canada (See Table 7.1), attempts to measure the health, wealth, and comfort level of Indigenous communities, providing a rough comparative measure of how Indigenous communities having been faring over time (Indigenous Services Canada, 2019). While there are upward trends for both the First Nations and non-Indigenous populations, it is worth noting that Saskatchewan continues to trend well below national norms for Indigenous Peoples, just as Indigenous Peoples track well below national averages on the various indicators in the well-being index. Northern Saskatchewan First Nations communities, importantly, rank well below other Saskatchewan First Nations. (This data, importantly, does not report on the experience of the Métis, whose income, educational and health indicator levels typically run above those of the First Nations). Other socio-economic indicators, including post-secondary education, suicide rates, intra-community violence, mental health disorders, substance abuse, long-term unemployment, poverty, and incarceration rates show similar trends.

Indigenous Peoples in northern Saskatchewan have secured real and important returns—jobs, income, business opportunities, and community benefits—from the mining activities but this engagement has not proven to be a panacea. The underlying issues of colonization, state paternalism, the dislocations associated with residential school attendance, ongoing racism and the economic and

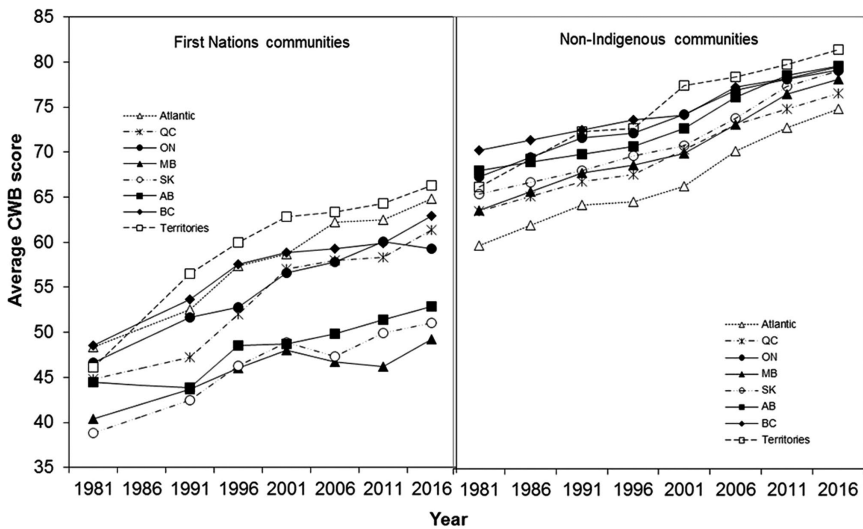


Figure 7.1 Community Well-Being Index (1981–2016).

Source: Indigenous Services Canada. (2019). *Report on trends in First Nations communities, 1981 to 2016*. <https://www.sac-isc.gc.ca/eng/1345816651029/1557323327644#chp5b>.

political challenges of being in a geographically and culturally marginalized part of the country remain real for the First Nations and Métis people of northern Saskatchewan. The mining industry, particularly through Cameco, has responded to the aspirations of Indigenous communities although the collaborations and partnerships remain under development. And there are clear off-sets, in the form of environmental risks, increased hunting, and commercial access to traditional territories, uneven distribution of wealth and the like, to the benefits associated with the mining industry.

Engagement with mining will be part of the socio-economic answer to the issues and challenges facing Indigenous Peoples; on balance, it is clear that the First Nations and Métis people of the region believe that the relationships are acceptable and perhaps trending in the right direction. But finding sustainable responses to the linguistic, cultural, social, political, and economic issues facing Indigenous Peoples in the Canadian North will require much more than the opening of a few mines, a perspective that the mining industry itself shares. In the complex tapestries of Indigenous lives in northern Canada, mining is but one small part, albeit one that has transformed from one of the most disruptive and destructive elements in Indigenous lives in the Canadian North to an industry that has adapted and responded to Indigenous realities and expectations.

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8 Mining, climate change and Indigenous Peoples in Ontario, Canada

Intersecting impacts and the role of corporate social responsibility

*Jordan Scholten, Emma De Melo and
Nicolas D. Brunet*

Introduction

Globally, Indigenous Peoples have governance rights to approximately 38 million square kilometers of land, representing around 25% of the Earth's land surfaces (Fa et al., 2020). Environmental features including wetlands and intact forest landscapes have been identified as strongholds for the protection of Indigenous economies, traditional practices, and their livelihood (Fa et al., 2020). However, natural environments and the ecosystem services they provide to humans and other living organisms are continuously threatened by a number of anthropogenic sources with a backdrop of global climatic changes. In Canada, industrial developments and resource extraction, in particular, have been responsible for much of the landscape level change within Indigenous ancestral lands. As a result, Indigenous Peoples in Canada are not only increasingly vulnerable to a changing climate, but are experiencing synergistic cumulative effects of extractive industries that operate predominantly within their traditional territories (Birch, 2016; Odell et al., 2018).

This chapter explores the nexus of mining and climate change within the unique context of Indigenous communities in what is presently considered Canada, focusing on the province of Ontario (Odell et al., 2018). Our hope is to reveal, in particular, critical barriers to climate change adaptation that impede efforts to build community capacity and resilience, as well as highlight strategies for Indigenous communities seeking corporate social responsibility (CSR).

However, studies exploring this relationship between climate change, mining, and Indigenous Peoples were found to be scant in the context of Ontario, despite numerous studies of these theme independently and bilaterally. This chapter therefore aims to initiate a discussion around the complex intersection of these three themes, while exploring the role of CSR and other mechanisms used to uphold ethical mining practice principles within the context of our review. Our chapter uses a novel conceptualization (Figure 8.1) to structure our exploration of the literature and emerging research need.

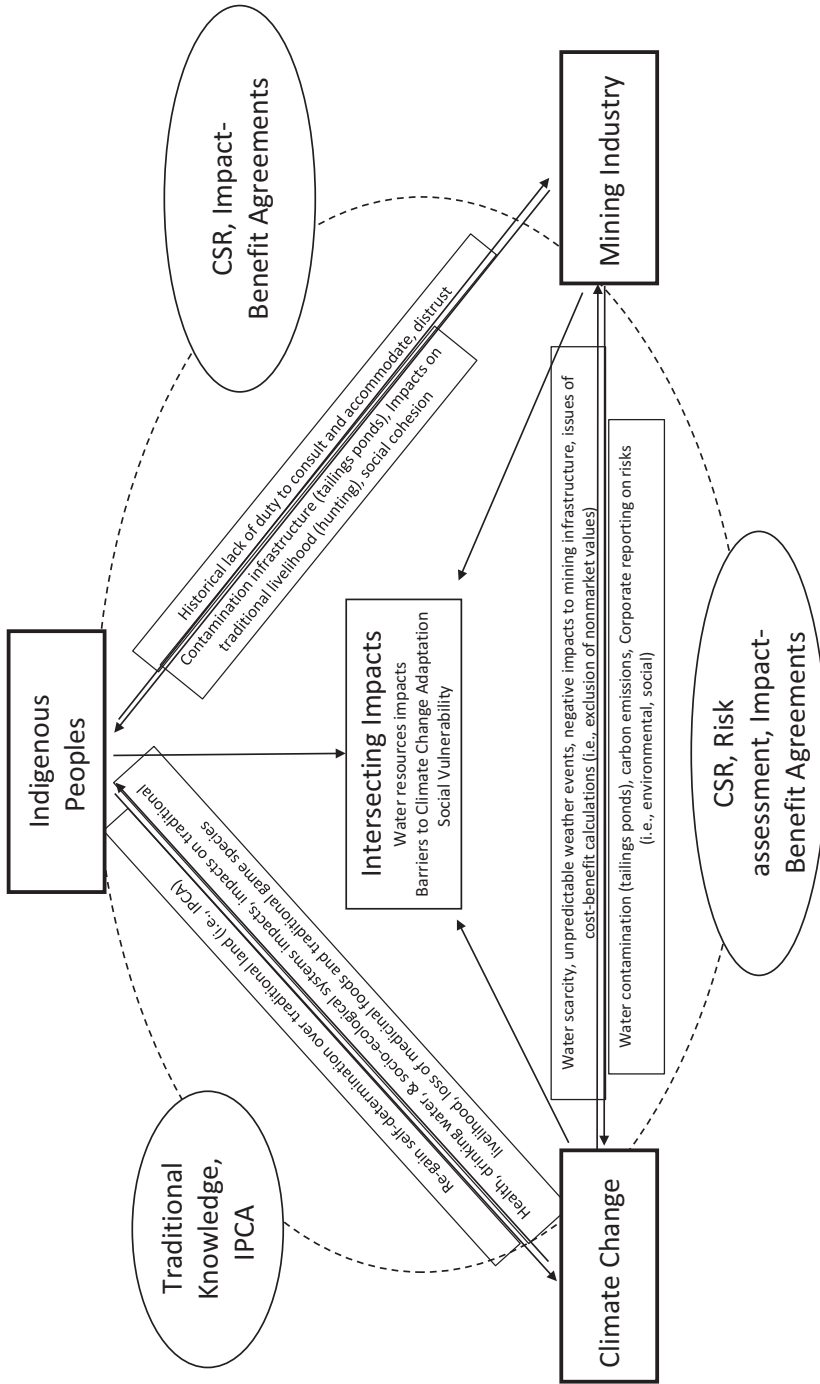


Figure 8.1 Conceptual framework. Demonstrates how the impacts of climate change and extractive industries are having synergistic effects on Indigenous communities through intersecting and compounding impacts.

Conceptual Framework

As a means to better understand the nexus of climate change, Indigenous communities, and mining as well as frame our literature review, we devised a conceptual diagram found in Figure 8.1. Management and policy-oriented strategies are depicted by the three oval shapes representing potential pathways to mitigating a variety of issues within the nexus. Intersecting impacts are shown in the central box. These relationships are explored in detail in the review that follows.

Climate Change Impacts on Indigenous Peoples

We begin with an exploration of the literature at the intersection of climate change and Indigenous Peoples. This relationship is likely the most prevalent in literature according to the review, although dated.

Climate change is attributed to the unprecedented increase in average surface temperatures, along with thinner ice coverage, greater variability in weather patterns, and warmer year-round seasons (Grover, 2014; Ohba & Sugimoto, 2018; Ribeiro et al., 2021; Tam et al., 2013). Indigenous Peoples have been adapting to changing environmental conditions for decades, however, with anthropogenic climate impacts and changing socio-economic factors, their adaptive capacity is being put to the test (Herrman et al., 2014; Pearce et al., 2015). An example of a historical adaptation measure that is no longer accessible to most communities, notably in Northern Ontario, includes shifting traditional hunting routes to follow the herds as they move (Pearce et al., 2015). Historically, hunters had the ability to follow herds over frozen bodies of water to adjust their hunting routes, whereas presently, changes in ice break-up due to a warming climate create an unpredictability in this adaptative approach (Pearce et al., 2015; Rempel et al., 2021; Tam et al., 2013). Studies seem to agree that climate change manifests in arctic and sub-arctic Indigenous communities as unpredictability in sea ice and seasons with implications for traditional livelihoods (Flynn et al., 2018; Golden et al., 2015; Grover, 2014; Ohba & Sugimoto, 2018). For instance, the term “blue-ice” is often used to signify the importance of and reliance on ice formation for Northern First Nations communities in Ontario and elsewhere in Canada (Golden et al., 2015). This term is embedded within traditional knowledge and the languages of numerous Indigenous communities located along the James Bay coast, referring to a specific environmental condition in both seasonal ice formation and activities that are and have been carried out on, with and because of ice of a certain quality (Golden et al., 2015). These ice formations are particularly critical in sustaining winter road networks, and migratory routes for traditional game species.

With shortened winters accompanied by earlier ice-breakup and elongated spring-summer seasons, sea ice within Northern regions of Ontario is thinner than before (Tam et al., 2013). These changes have implications for transportation routes (i.e., ice roads) and can have significant impacts on

migratory species that rely on the waterways freezing (Tam et al., 2013). Ice-roads are generally made up of a unique combination of snow and ice (i.e., blue-ice) and are functional during winter months (Golden et al., 2015; Hori et al., 2018). These unique roads emerged across Northern Ontario in the 1950s and since then have received provincial funding to support their development and maintenance (Hori et al., 2018). Ice roads are often connected to year-round road systems therefore providing remote communities with access to highways and railways that otherwise would not be accessible without the ice road (Hori et al., 2018). Not only do these routes provide opportunity to expand economic-routes and partnerships between remote communities, these corridors also facilitate social connections among communities (Hori et al., 2018). Utilization of winter roads may be the only alternative for the delivery of essential goods for remote located fly-in communities (Grover, 2014). The impacts on delivery mechanisms due to the shortened duration of, or complete loss of, ice roads is demonstrated in Grover (2014) and Hori et al. (2018). Grover (2014) discusses the case of Eabametoong, an Indigenous community located along the Albany River system in Northern Ontario that has been without ice road access since 2003 due to mild winter seasons, resulting in ongoing shortages of fuel, food, construction materials, and other essential goods. Hori et al. (2018) explore the importance of ice roads for Indigenous communities in Northern Ontario focusing on the James Bay Winter Road managed by the Attawapiskat, Kashechewan, Fort Albany, and Moose Cree First Nations communities. Key informants (i.e., those who construct the roads) and ice road users with traditional knowledge discussed climactic indicators that are crucial in the development and usage of ice-roads, namely: extremely cold temperatures, and sufficient snowfall (Hori et al., 2018). With warmer temperatures and decreased snowfall, the ice-road exposure-sensitivity to climate risks increases and often leads to the closure of these roads or an inability to develop them throughout the winter season (Hori et al., 2018).

Tam et al. (2013) collaborated with Fort Albany First Nation to understand the more nuanced local impacts of climate change. Collectively, the results from this study demonstrated an overarching theme of interrelatedness where participants described that one environmental impact from climate change creates a “domino effect” within communities (Tam et al., 2013). Unanimously, participants agreed that the weather is more severe and variable, that winters are milder, shorter, and have a later onset (Tam et al., 2013). Further, many participants in this study revealed that climate change is causing alterations to the arrival of migratory species (Tam et al., 2013). Traditional game species populations have decreased in the James Bay Region, whereas increases in predator populations such as wolves and polar bears have been observed near villages (Tam et al., 2013). Unexpected fluctuations in these species have implications for traditional subsistence hunting practices in communities, sometimes leading to reduced country food supply. Similar experiences are expressed by Inuit communities in Northern Canada as examined by Pearce et al. (2015), where compromised hunting trails, altered sea

ice dynamics, and increased weather events have been observed with a changing climate. Previously successful adaptation measures are becoming more difficult to practice, such as shifting location to follow the migration of animals, hunting reduced numbers of species, and having flexible hunting seasons (Pearce et al., 2015). This unpredictability that accompanies climate change results in heightened uncertainty regarding traditional subsistence hunting practices with major implications for food security and livelihoods (Rempel et al., 2021).

The impacts from ice road closures, or failures, and the shortening of seasons, etc. also result in significant health impacts on communities relying on these routes, both physically and mentally. Specifically, the Fort Albany winter road users expressed that access to ice roads is a social lifeline as they can more frequently visit family and friends using fewer financial resources (Hori et al., 2018). Further, participants in the James Bay Region discuss how the James Bay Winter Road improves their mental health by increasing their connectedness and decreasing the feeling of isolation from other communities (Hori et al., 2018). Although snowmobiles, dogsleds, and air access remain as possible transportation methods for communities, these options may only be accessible to some (Hori et al., 2018).

Climate Change Impacts on Health and Drinking Water

Water is a unique natural resource given its physical properties, cultural significance, and its essential role in supporting life on earth (Grover, 2014). However, the human consumption of pathogenic and non-pathogenic elements in drinking water has become an issue of global health concern. In fact, drinking water safety in Indigenous communities in Canada has been an ongoing concern for decades. Overcrowded households and inadequate water treatment infrastructure have been identified as the main culprits within this context (Grover, 2014).

Compounding these issues, climate change impacts within Canada's North have increased the frequency of temperature extremes, extreme weather events, uncharacteristic weather patterns, as well as high UV exposures (Bhardwaj, 2014). Numerous health impacts are associated with these effects including increased hunting accidents, morbidity to hot and cold events, cancer risks, and psychological stresses (Bhardwaj, 2014). Although this study is somewhat dated, similar observations from different Indigenous communities were reported in a recent study by Galway et al. (2022). Here, participants in Fort William First Nation shared concerns about increased cancers, infectious diseases, air pollution, food insecurities, and water quality issues that are all directly connected to inconsistent and unpredictable weather extremes (Galway et al., 2022). Additionally, Galway et al. (2022) highlighted that climate change has resulted in the loss of traditional foods and medicines, specifically blueberry patches in the Fort William region, which are a culturally significant food to Indigenous communities.

The impacts on the physical and mental wellbeing of these communities compounded with impediments on traditional livelihood from climate change have resulted in social movements to re-claim land rights from western governments (Rashidi & Lyons, 2021). Though not exhaustive, the following section provides an example of a land-resource tool that Indigenous communities are utilizing to initiate a broad push for self-determination over their traditional territory and resources within as climatic changes are felt.

Indigenous Land-Resource Governance and Climate Change

Indigenous land governance systems represent a broad set of alternatives to settler state-led approaches to protecting “natural” areas and managing “resources” (Youdelis et al., 2021). Much of Indigenous governance is rooted in Natural Law, a foundational concept to Indigenous Law, which stems from the worldview that humans have a responsibility to maintain relationships with other species and play a vital role in functioning ecosystems (Youdelis et al., 2021). A manifestation of this conceptualization of nature has emerged in Indigenous Protected and Conserved Areas (IPCA), an Indigenous governance approach that operates within the climate change nexus (Figure 8.1). It provides a promising example of grassroots level community led implementation and has received financial support from the settler government in Canada. Fundamentally, the emergence of IPCAs in Canada represents a paradigm shift away from western conservation measures (Youdelis et al., 2021).

For instance, the Daisqox Tribal Park (Dasiqox-Nexwagwez?an) was created in 2014, by the Tsilhqot’in (Chilcotin) communities of Xeni Gwet’in and Yunesit’in in British Columbia (Youdelis et al., 2021). The intent of this effort was to assert local Indigenous jurisdictional rights and title to land within the context of sustained pressures from extractive industries throughout the traditional territory (Youdelis et al., 2021). The IPCA designation provided grounds for local communities to fight the development of an open-pit gold and copper mine that was proposed prior to its creation (Youdelis et al., 2021). Similarly, Moola and Roth (2018) discuss the establishment of an IPCA in a 40 km² protected boreal forest between the borders of Manitoba and Ontario known as Pimachiowin Aki (“the land that gives life”). This land is now designated a UNESCO World Heritage Site and started under a Cooperative Relationship Accord signed in 2002 by four Anishinaabeg First Nations who designated the land as an IPCA (Moola & Roth, 2018; Pimachiowin Aki Corporation, 2022). This study found that IPCAs can advance Indigenous-led conservation while mitigating climate change impacts by preventing the removal of forested areas (Moola & Roth, 2018). However, there are still clear instances where colonial governments have sought to undermine Indigenous governance rights despite these designations (Youdelis et al., 2021). This is particularly true when the country’s extractive economy is at stake, and where jurisdictional inconsistencies across the nation can be exploited to undermine the long-term success of IPCAs (Youdelis et al., 2021).

Impacts of Mining on Indigenous Peoples

The Proliferation of Mining in Canada and the Intersections of Employment, Sovereignty, and Colonial Institutions

Mining is a significant contributor to the Canadian economy, with each stage of the mining process forming a strong economic base for communities across the country (Pearce et al., 2009). In 2020, almost 200 mines operated in Canada, with mineral production rising to \$43.8 billion in value, resulting in \$107 billion in direct and indirect contributions to Canada's GDP (Government of Canada, 2022). Extractive industries have the potential to create income growth, increase the demand for goods and services, improve social and health services, and increase community funding (Horowitz et al., 2018). Positive local benefits are hard to come by in the literature, however, Huskey and Southcott (2016) found that mining in the Yukon from 2000 to 2012 resulted in economic benefits by way of spending in the local community. Although extractive economies demonstrate the potential to contribute positively on local communities in which they are located, Indigenous Peoples in Canada have been heavily impacted by the mining industry due to the proximity of their communities and traditional territories to mining operations (Caron et al., 2019). As of 2022, over 16,500 Indigenous Peoples were employed in the mining industry and formed 12% of the upstream labor force (Government of Canada, 2022). Where mining activities in Canada result in impacts to constitutionally entrenched Indigenous treaty or treaty rights, the mechanisms to protect said rights are typically triggered (Horowitz et al., 2018). In Canada, "Aboriginal rights", or Aboriginal title, is loosely defined as the exclusive rights to use, manage, and benefit from the land for current and future generations (Horowitz et al., 2018). For lands held under Aboriginal title, consent must be secured to authorize development activities, although the final decision rests with the federal government (Horowitz et al., 2018). This can supersede the decision-making power of Indigenous communities to permit mining activities on Indigenous lands, given that the procedural aspects of the Crown's *duty to consult* have been completed (Horowitz et al., 2018).

Within the Canadian legal context, the judicial interpretation of this duty to consult and the emphasis on the *procedural responsibilities* of the government has resulted in what Urquhart (2019) refers to as a "thin" version of inclusivity, as opposed to a "thick", substantive inclusivity for the promotion of Indigenous community wellbeing and social sustainability (Segerstedt & Abrahamsson, 2019; Urquhart, 2019). Free prior and informed consent has the potential to enable local development if such consent flows from the community itself (Holcombe & Kemp, 2019). However, the ultimate power to grant permission still rests with the settler government, resulting in the approval of mining projects that are at odds with local community values and traditional livelihoods (Urquhart, 2019).

Impact Benefit Agreements (IBAs) have become more common within the Canadian mining sector as Indigenous communities seek greater decision-making power, and benefits derived from mining operations on their traditional

territories (Hall, 2013). This tool is widely recognized as an avenue to enable local community growth for Indigenous Peoples in the context of mining developments (Holcombe & Kemp, 2019). Negotiated agreements between mining companies and Indigenous communities typically stipulate the economic benefits to the community, with employment opportunity acting as a key indicator (Hall, 2013). Although experiences vary between communities, these negotiated agreements are often recognized as a source of empowerment and self-determination as IBAs form the foundation for more socially responsible mining operations (Hall, 2013; Holcombe & Kemp, 2019). Promising, yet imperfect, an analysis of IBAs in Canada revealed their continued treatment of Indigenous communities as business partners, rather than as rights holders (Hall, 2013). Further, accountability mechanisms are becoming non-existent as the agreements are negotiated outside of the formal regulatory frameworks (Hall, 2013). This results in access to Indigenous lands for mining companies with few assurances that environmental impacts are mitigated, while economic benefits flow to the local community (Hall, 2013).

Corporate Social Responsibility in the Canadian Mining Industry

The Canadian mining sector saw the proliferation of CSR in the 1990s, with the industry attempting to align itself with the Sustainable Development Goals following the 1992 United Nations Conference on Environment and Development in Rio (Frederikson, 2018; Msosa & Govender, 2019). This rise of CSR and associated policies has been found to improve the image of mining companies; however, the research from Frederikson (2018) critiques the apparent lack of change to business practices. Increasingly, the mining sector has adopted CSR as a public relations tool for risk management that manifest a positive image of mining impacts, thus impeding the flow of benefits from CSR programs to local communities (Frederikson, 2018). Furthermore, the orientation towards risk management limits the consideration of risks as perceived by market investors rather than the risks perceived by the local community (Frederikson, 2018). Local perspectives, knowledge, and cultural understandings of risk are often not integrated into risk assessment, resulting in technical solutions to simplified issues that do not address the environmental and social problems that stem from mining operations (Frederikson, 2018). The implications of the rise of CSR as a tool to manage risk have not seen systemic integration into the literature. However, Frederikson (2018) suggests that the organizational treatment of CSR in mining corporations has not resulted in inclusive and just development opportunities for local communities. The lack of corporate accountability to ensure that the lives of those in nearby communities are improved despite the significant social and environmental impacts from mining operations has resulted in little substantive change from CSR policies and initiatives (Frederikson, 2018).

Socio-Ecological Impacts of Mining on Indigenous Communities

The proximity of mining operations to Indigenous communities and the environmental degradation that often results from their spatial proximity align with environmental injustice narratives, which point to the uneven distribution of environmental costs to Indigenous communities (Herrman et al., 2014; Keeling & Sandlos, 2009). It is widely recognized that mining operations disproportionately impact Indigenous Peoples due to their land-based livelihoods (Horowitz et al., 2018). Additionally, the spatial distribution of mining waste facilities suggests that Indigenous communities endure the most of environmental consequences from mining activities in Canada (Keeling & Sandlos, 2009). Older research suggests that 36% of Indigenous communities in Canada live within 50 kilometers of mining operations, and a total of 1,200 Indigenous communities reside within 200 kilometers of mines (Keeling & Sandlos, 2009). The spatial distribution of mining operations in Canada and the associated social and environmental harms derived from these operations has resulted in significant environmental justice struggles throughout northern Canada (Keeling & Sandlos, 2009). Mining operations broadly result in surface disturbance and deforestation, primarily from exploration activities and the construction of roads, waste facilities, and other infrastructure (Horowitz et al., 2018).

LeClerc and Keeling (2015) found that mineral extraction from the Pine Point open pit mine in the Northwest Territories had lasting and significant impacts on the Fort Resolution Indigenous community. The Pine Point mine continues to influence Indigenous relationships with the land well over 25 years after its closure (LeClerc & Keeling, 2015). Changes to the landscape from the mine resulted in fundamental changes to the socio-ecological relationships in the region and the socio-economic foundation of the Fort Resolution Indigenous community (LeClerc & Keeling, 2015). Cutlines for seismic exploration were bulldozed throughout the boreal forest, resulting in impacts on local hunting and trapping activity (LeClerc & Keeling, 2015). Traditional trapping practices eventually ceased due to flooding from disruptions to local hydrological conditions caused by the dewatering of open mine pits (LeClerc & Keeling, 2015). Following 1988, 46 pits remained open, tailings were left unvegetated, and waste rock remained around the mine site (LeClerc & Keeling, 2015). The impacts of land disturbance, such as the construction of roads and cutlines, have facilitated a deeper entry into the bush for hunting and trapping activities; however, a community-wide avoidance of the mine site and concerns regarding contamination of drinking water supplies remain (LeClerc & Keeling, 2015). The continuity of traditional livelihoods amidst an ever-changing environment speaks to the adaptive capacity of Indigenous communities in situations of environmental change (Aldred et al., 2021; LeClerc & Keeling, 2015). Collectively, this adaptive capacity challenges the pathologizing of Northern Indigenous communities as vulnerable and undergoing extraction (Aldred et al., 2021; LeClerc & Keeling, 2015).

Impacts of Climate Change on Mining Activities

Climate Change and Impacts on Mining Infrastructure

Concerns regarding the impacts of climate change on the mining sector have been expressed by both the International Council on Mining and Metals, as well as the Mining Association of Canada (Pearce et al., 2009). Although there is very little published literature at this nexus over the last decade, the intersections between mining and climate change have been discussed in trade journals and at mining conferences, whereby issues pertaining to energy management, sustainability initiatives, and mitigation initiatives have been highlighted (Pearce et al., 2009). The literature on climate change impacts and the mining industry response to these threats throughout Canada is primarily focused on mitigation, and notably, measures to protect mining infrastructure (Pearce et al., 2009, 2011).

Climate change impacts of concern on mining infrastructure, include the threats of permafrost thaw with implication for infrastructural integrity of open-pit mines, and the weakening of contaminant infrastructure such as tailing ponds (Leuschen, 2020; Pearce et al., 2011). Water-dependent mine processes such as dust suppression, covering of tailings, and mine drainage may be impacted by water scarcity that is found to accompany climate change (Leuschen, 2020; Pearce et al., 2011). The built infrastructure of mining operations has historically depended on a stable climate regime; thus, existing infrastructure cannot withstand extreme weather events that are becoming increasingly unpredictable (Pearce et al., 2011). Numerous cases demonstrating a lack of infrastructural mine integrity and system failure are present in the literature. For example, in 2008, the Sherwood Copper Corporation released 350,000 cubic meters of waste discharge into the Yukon River system due to rains that exceeded system capacity (Pearce et al., 2011). In 2009, a comparable situation arose, in which untreated mine-waste discharge was distributed into the Yukon River system (Pearce et al., 2011).

The need to maintain, replace, and upgrade mining infrastructure, including structures to support mine closures (i.e., tailing dams), is critical in northern Canada where warming conditions can lead to infrastructural instability on lands experiencing permafrost melt (Prowse et al., 2009; Stratos Inc., 2011). Perceived costs to incorporate adaptive infrastructural upgrades for mining operations, along with climate model uncertainties, result in significant barriers preventing investment into climate change adaptation initiatives for mining operations (Pearce et al., 2009). Furthermore, containment structures are at risk of failure due to heavy precipitation events which are projected to increase in frequency and intensity throughout Canada (Leuschen, 2020; Stratos Inc., 2011).

The chemical waste products that emanate from mining activities represent one of the greatest sources of environmental pollution for nearby local Indigenous

communities (Horowitz et al., 2018). Tailing ponds, berms, and spoil heaps in general present significant environmental hazards for both local communities and wildlife; however, changing climate conditions further threaten the stability of these structures (Pearce et al., 2011). Permafrost thawing at the Clinton Creek asbestos mine in Yukon has resulted in the erosion of waste rock dumps and tailing infrastructure, resulting in the release of 60 million tonnes of waste rock, and 10 million tonnes of tailings (Pearce et al., 2011). The impacts on local fish habitats from these contaminations have been catastrophic (Pearce et al., 2011). The failure of tailing impoundments can be detrimental to both ecosystems and human populations, as it often results in property damage, rapid inundation, and deaths in downstream communities (Horowitz et al., 2018).

Despite the distinct landscape and socio-environmental impacts of mining on Indigenous communities, and the compounding threats of climate change, studies demonstrate that the mining sector in Canada has not prepared for a changing climate (Loechel et al., 2013). The accumulation of environmental damage and relative vulnerability from mining infrastructure could result in catastrophic social and environmental implications. Further research is needed to explore the vulnerabilities that may arise at the intersection of mining, climate change, and Indigenous communities. The discussion below explores the various barriers and limitations to climate change adaptation for the mining industry in the north, and the economic and socio-ecological implications for Indigenous Peoples.

Discussion

This literature review provides foundational concepts and themes that have been incorporated into the development of the conceptual framework shown in Figure 8.1. Research at the intersection of climate change, mining, and the impact on Indigenous traditional livelihoods is rare; however, the following paragraphs attempt to draw connections between these three themes based on our review (Horowitz et al., 2018). From the development of the conceptual framework, the intersecting impacts that have been observed include impacts on water resources, the social vulnerability/adaptive capacity of Indigenous communities to climate change and mining, and various barriers to climate change adaptation. Further, there are few governance frameworks that emerged from the literature that provide beneficial outcomes for mitigating the compounding impacts from climate change and the extractive industries on Indigenous communities, while building local governance capacity. We focus specifically on mechanisms that support CSR as a potential strategy to bridge the three main themes, despite its clear failings in real world application.

Intersecting Impacts: Water Resources

Studies have found that water resources are particularly vulnerable to the cumulative, synergistic effects of climate change and the mining industry, focusing

on the quality and quantity of drinking water, and water-based environmental features (i.e., watersheds, wetlands) (Grover, 2014; Ribeiro et al., 2021; Richardson et al., 2019; Shandro et al., 2017). On the climate change front, increasing temperatures encourage the reproduction and water-based transport of pathogens and the increased frequency of droughts or inconsistent precipitation (Galway et al., 2022; Grover, 2014). Extractive industries impact water resources directly through contamination infrastructure such as tailing ponds, that are found to pollute groundwater resources and are increasingly failing due to unprecedented weather events (Horowitz et al., 2018; Shandro et al., 2017). The increased intensity, frequency, and unpredictability of weather such as droughts or flash floods are challenging modern mine infrastructure (Horowitz et al., 2018; Pearce et al., 2011). Previously highlighted in the literature review, tailing ponds and other mine infrastructure already pose threats to nearby Indigenous communities. With increased flooding, these ponds are even more susceptible to overflowing and carrying contaminants outwards (Leuschen, 2020; Shandro et al., 2017). These relationships are illustrated in Figure 8.2. According to Leuschen (2020), the mine infrastructure design for tailing ponds and spillways are being updated to consider these changes in climate; however, there is a lack of concise data to support what should be accounted for in climate ready design. Collectively, our review found that there are significant threats to water resources from both extractive industries and climate change, with Indigenous Peoples shouldering most of the burden (Ribeiro et al., 2021; Richardson et al., 2019; Shandro et al., 2017). The mining industry has a responsibility to work closely with climate professionals to adapt more adequately to predicted climate changes and incorporate these forecasts into structural designs.

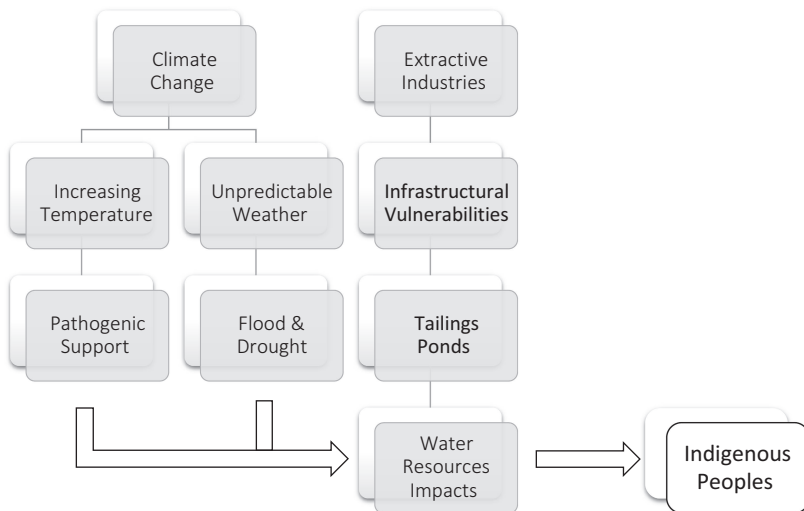


Figure 8.2 Climate change and extractive industries impact on water resources.

Despite its limitations, CSR could provide a pathway for the mining industry to be more accountable for the water related impacts of their operations. Karwowski and Raulinajtys-Grzybek (2021), for instance, found that environmental risk reporting as part of CSR measures was considered very important by companies reliant on natural resources such as natural gas, oil, and utilities. However, Sethi et al. (2016) found that although mining companies are diligently including environmental risk indicators and actions for mitigation into their CSR reports, the scoring should be significantly higher to observe meaningful change (Sethi et al., 2016). There is an identified imbalance between CSR reporting that is deemed appropriate by the corporation, versus reporting standards demanded by residents and Indigenous communities that bear the brunt of the impacts from insufficient reporting and falsified actions.

Intersecting Impacts: Social Vulnerability

The mining industry's focus on mitigation, as opposed to adaptation (Loechel et al., 2013), has resulted in the proliferation of vulnerabilities for Indigenous Peoples associated with active and abandoned mining infrastructure.

Research on the impacts of mining operations on traditional livelihoods is conflicting, with some studies indicating that mining operations lead to decreased traditional harvesting activities in Indigenous communities due to changes to the landscape (Horowitz et al., 2018). Other research shows that traditional livelihoods see little impact from mining activities with the economic diversification providing employment opportunities to Indigenous communities (Horowitz et al., 2018; Millington et al., 2020; Richardson et al., 2019). Further, Millington et al. (2020) discusses successful sponsorship of grassroots sports organizations within Indigenous communities across Canada that is initiated by mining and other resource industries. This illustrates a positive social impact on communities, namely social capital, from mining industries. Coupled with these impacts, climate change is found to significantly alter the predictability of seasons for traditional hunting practices, where winter months are shortening, and summer months are elongating (Grover, 2014; Ribeiro et al., 2021). There is research that points to adaptive approaches taken by Indigenous Peoples to continue traditional harvesting practices, even amidst environmental change brought on by extractive industry processes (Horowitz et al., 2018). There are, however, barriers and limits to climate change adaptation for Indigenous communities (Barnett et al., 2015). Barriers to climate change adaptation vary geographically between communities and are dependent on a variety of factors, such as the knowledge and awareness of change, economic factors, the biophysical environment, financial factors, and institutional processes and governance (Barnett et al., 2015). The values held by individuals are highly dependent on cultural worldviews and political ideology, resulting in vast differences in perspective on environmental issues, and public engagement on environmental issues such as climate change (Corner et al., 2014). A central component of "value" in the context of the mining industry is not only the human or socio-cultural dimension but that of the market as

well. Mining corporations have a commitment to reducing the risk to shareholder value, thus the economic value of CSR policies and adaptation measures can take precedence over the more local human dimensions of value (Frederikson, 2018). This was noted by Pearce et al. (2009), who found that climate change mitigation is more common than adaptation in mining trade journals and academic literature, with a central focus on improving the bottom line by way of improving energy use.

Three key barriers to climate change adaptation are discussed in the following paragraphs, including the unpredictability of future weather conditions, and the cost to implement adaptation measures for climate change (Loechel et al., 2013; Prowse et al., 2009; Stratos Inc., 2011). Further, the distrust between mining industries, Indigenous communities, and western governments is discussed as a barrier to adaptation, as this tension contributes to ineffective engagements between these three groups.

Barriers to Climate Change Adaptation on the Industry Front

Costs associated with climate change adaptation should in principle be shouldered by the mining industry, which has a responsibility to update structures and processes in the face of environmental change; however, these costs are often outweighed or excluding non-market elements such as spiritual, aesthetic, or cultural ecosystem services (Barnett et al., 2015; Moola & Roth, 2018). These ecological services often do not have a monetary value attached to them, including natural water filtration from wetlands, and cultural services that Indigenous Peoples receive from the land (Barnett et al., 2015; Moola & Roth, 2018). Losses to less tangible elements are rarely considered by corporations and as such, present a significant barrier to local adaptive capacity, especially in the post-closure phase when containment structures have not integrated climate change considerations (Barnett et al., 2015; Leuschen, 2020). Moreover, in the rare instance where nonmarket impacts (i.e., ecological services mentioned above) have been considered in budgets, they have been found to be subject to manipulation (Barnett et al., 2015). As such, without traditional “value”, these services can be excluded from mainstream economic and cost-benefit calculations (Moola & Roth, 2018). If nonmarket values were included in cost-benefit analyses, it could result in their incorporation into the valuation process for infrastructural upgrades (Barnett et al., 2015; Boiral et al., 2019). Barnett et al. (2015) found that the cost of inaction and unguided infrastructural changes to mitigate climate change impacts on the mining industry outweigh the cost of approaching valuation processes to include both market and nonmarket values. This poor incorporation of nonmarket values into cost considerations is often coupled with improper engagement of Indigenous communities during operational phases which collectively drive social vulnerability (Barnett et al., 2015; Boiral et al., 2019).

Further to this, vulnerability and adaptive capacity are inherently local and therefore variable (Barnett et al., 2015). This variability requires mine developers to use tailored approaches to support meaningful engagement with community

partners regarding individual project proposals, as well as during the operational and post-closure phases, especially in a time of unpredictable climatic change. Justification for action, or inaction, is, as a result, inherently dependent on the assessment of perceived risks by local rightsholders, not only mining executives and shareholders (Barnett et al., 2015). Mining companies seeking sustainable solutions to support good corporate citizenship and long-term extractive activities should also pursue climate change adaptation retrofits that align with the unique nature of these communities. Strong community engagement as well as embedding Indigenous knowledge in such assessments become central components to such enhanced CSR initiatives in order to build a corporate brand that can be trusted by local, regional, and national actors (Barnett et al., 2015; Boiral et al., 2019).

Conclusion

Distrust between the mining companies and Indigenous communities is unsurprising given the social, economic, and environmental impacts associated with resource extraction (Keeling & Sandlos, 2009). Canada's colonial history of assimilation of Indigenous Peoples, and the paternalistic nature of the duty to consult and accommodate has often resulted in a deep-rooted mistrust of government as well (Brock et al., 2021). Attempts by the mining industry to engage in dialogue and consultation with Indigenous communities, are often characterized as superficial, with underlying intentions to serve business interests as opposed to a genuine concern for the environmental and social sustainability of resource extraction (Boiral et al., 2020). However, more optimistic reflections of community engagement in the extractive industry note that relationship building is increasingly becoming a core business practice (Boiral et al., 2020). There is also a recognition that negotiated agreements and partnerships with Indigenous communities support a proactive approach to deterring environmental and social harm (Boiral et al., 2020). Community engagement has the potential to contextualize the complex socio-ecological processes that lead to community vulnerability due to the cumulative impacts of climate change and industrial mine development in northern Canada (Schlosberg et al., 2017). Continued involvement of Indigenous Peoples within the mining industry's workforce has the potential to imbed Indigenous perspectives and improve organizational knowledge and negotiated agreements. IBAs have the potential to forge long-term relationships between corporate actors and Indigenous communities and encourage knowledge sharing that contextualizes the intersection of climate change, mining development, and Indigenous connections to the land (Boiral et al., 2020). Further research should be undertaken to determine the improvements needed to address relationships of power in the negotiation process for IBAs, as some more dated research characterizes the negotiation processes as static, closed, and inappropriate for knowledge sharing (Caine & Krogman, 2010).

Our understanding of the synergistic effects of global climate change and extractive industries on Indigenous Peoples remain largely unknown,

misunderstood, and clearly, underemphasized by decision-makers (Larsen et al., 2017). Certain cases presented in this chapter, have demonstrated the effectiveness (or lack thereof) of alternative governance strategies at the nexus of climate change, mining, and Indigenous rights that could be used in the Ontario context. Clearly though, the most robust governance approaches struggle to compete with economic considerations. Although the costs of climate change adaptation in the mining sector are admittedly high, the economic value of engineered responses to effects such as permafrost melt, brought forth by climate change could provide justification for improvements to dated mining infrastructure (Pearce et al., 2011). However, voluntary engagement with Indigenous Peoples by mining companies on issues such as climate change adaptation and the legacies of effects have proved to be few and far between, according to our review. Settler governments could play a role within this nexus by supporting Indigenous-led protection and restoration (such as IPCAs) of valuable environmental resources that are at risk from decaying mining infrastructure and are identified as climate vulnerable. The academy could also support Indigenous Peoples through research on innovative governance frameworks to support strategies which provide communities with decision-making power at the intersection of climate adaptation and mining within their traditional territories.

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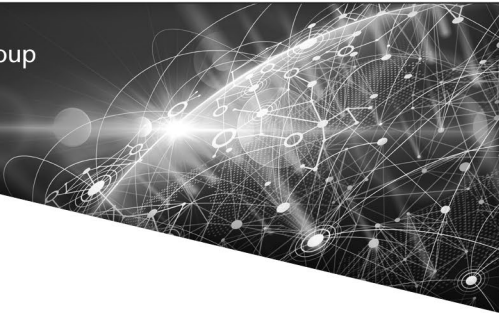
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